An Address
ON
EXPERIMENTAL CRANIOTOMY AND DIAGNOSIS OF CEREBRAL ABSCESS.

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(Concluded from page 211.)

PERHAPS it will seem to some that I have brought forward examples too remote to sustain my theory. And, in fact, when one cares to turn over the chronicles of medicine one can always manage to put together half-a-dozen cases which seem made on purpose for one's own theories. But I have taken my observations only from my own unfortunately narrow experience; I have not chosen them from among hundreds. Nor can I deny that cases less obscure than these often occur. The diagnoses which ordinarily answer best are those which rest on suppurative otitis. Yet, nevertheless, even in these cases, which are the most favourable, judgment is difficult. Gowers,[1] a man of wide clinical experience, writes: "The difficulty of distinguishing the existence of a cerebral abscess in a case of chronic disease of the ear is often very great, since certain general cerebral symptoms, amongst which is optic neuritis, may sometimes be produced by disease of the ear. Indeed, it is impossible to give any certain diagnostic rule in these cases. An important fact is that such cerebral symptoms, especially in severe cases of optic neuritis, are very rarely the result of disease of the ear, and in the great majority of cases in which they are found there exists an abscess." As a point of fact, there is a rule—i.e., to eliminate (treating and healing) the disease of the ear, and then to watch whether with it the cerebral symptoms also disappear. But until this elimination is affected (and the process is not easy) a rational distinction between a simple disease of the ear and otitis with consecutive abscess of the brain is often most difficult. Jansen, in giving an account of six assured cases of chronic cerebral abscess out of 13,000 patients studied in the clinic for diseases of the ear at Berlin, frankly confesses that only one of these abscesses was accurately diagnosed, and in that one the position was not determined; two other cases were decided to have intracranial complications without further diagnosis, "and in the rest of the cases" (I use his own words) "the post-mortem was a surprise to them."[2] Scheier, too, relates the history of a patient operated upon for suppurative otitis media, in whom the total disappearance of the symptoms had led to the belief that nothing existed within the brain, in which case nevertheless an abscess was found,[3] a fact which proves that even after the elimination of the disease of the ear the doubt may still remain. Yet decidedly one cannot believe that surgeons so experienced in diseases of the ear could have lacked the knowledge or attention needed to mark the dreaded symptoms of the complications of suppurative otitis. Those ignorant of the difficulties of such criteria, as a rule, speak more certainly, and sometimes even hit the mark; but this is a proceeding utterly incompatible with science and good work. Diagnoses are made and admired as brilliant which show nothing but arbitrary assertions doomed to be disproved; sometimes there may be a fortunate one. What wonder that it should be so? But that which Baccelli has so well defined as the supreme power of experience is not a blind event, not a kind of game in the dark; it is instead the rare faculty of seeing rapidly and accurately the relations of clinical facts, and by logical analysis unveiling their remote origins. The description commonly given of cerebral abscess agrees with the acute or subacute cases met with by the surgeon.

Our learned D'Antona[4] not long ago wrote that "a group of infective general disturbances belonging only to the abscess help us to distinguish its course from that of a tumour, when the two processes in other ways are similar or confused. While the course of a tumour is essentially chronic and limited to local action, that of the abscess is never unaccompanied by subacute action." Yet more decidedly Dieulafoy teaches that "fever is constant in encephalitis."[5] Many others affirm the same thing. If the clinic could sanction such sentences, differential diagnosis between tumour and abscess would not be difficult; but instead experience teaches that there are sudden deaths caused by abscess as well as by tumour. Martius narrates the case of a nun who suddenly fell into a stupor with a slow pulse and difference of pupils, and who died the same evening as they were putting her to bed. A huge old abscess was found in the brain. The truth, therefore, is that from an acute and sudden course to a very chronic one nothing is impossible in the case of abscess, and the physician who really desires to be practical must keep account of these frequent occurrences and not diagnose tumour, hæmorrhage, tuberculosis, or cerebral inflammation without asking himself if possibly beneath the special manifestations of the case under treatment there may not lie hidden one of those less frequent and chronic abscesses of the brain. He will take note of the height of temperature not only as possible in the chronic abscess, but as favouring this judgment rather than that of any of those other diseases which are apyretic; but he must also remember that prolonged or high fever is very rare in cases of abscess; that, indeed, if there be a high temperature and the diagnosis of chronic abscess is possible, he will be led to suspect one of those complications which belong to it, for of itself the chronic abscess tends rather to produce a temperature below normal; and I here present to you, to prove this, the temperature charts belonging to two of the patients. That of one shows some periods of almost normal temperature, alternating with others of subnormal temperature, showing the successive increase of the inflammation, quickly followed by the lowering of the temperature. That of the other shows little but temperature below normal, and it refers to a case of a purely chronic abscess. Certainly such a phenomenon could not be foreseen, and it is exactly for this reason that the precept is so rooted in the minds of physicians that the temperature must rise with an abscess. To discuss the origin of this tendency of chronic abscess to lower the heat of the body would be difficult and would lead to very little conclusion. We know now that our organism can produce not only phenomena which increase heat, but also others which diminish it; perhaps it is from the nature of the chemical compounds of the brain that inflammation more often produces a diminution of heat rather than an increase. Inflammation undoubtedly gives rise to pyrogenous matters, but the organ upon which they exert their action also decidedly coöperates in the formation of their products, and these differ according to the materials which it supplies to them. It is a fact that the general effect of the action of inflammation is pyrexia; but, on the other hand, do the liver, the lungs, and the peritoneum when invaded by them give rise to a similar pyrexia? Nor must it be fancied that my thermographic charts display any singular features, since the same experience has happened to others, amongst whom it is enough to cite Hulke and Macewen. Consequently, without exaggerating the importance of the fact, it seems to me that we might rather say that a subnormal temperature of long duration, and not pyrexia, is an accurate sign of the chronic abscess of the brain.

Another feature which appears to be a part of this process consists in the apparent recovery of which the disease is capable. A neoplasm, a parasite, or an aneurysm of the brain can also have periods of inactivity, but the disorders caused by them in the functions of the brain, being for the most part mechanical, are more apt to increase than to diminish. Incipient encephalitis instead has a tendency to cause irritation around it, but once the pseudo-membrane is formed the irritation of the surrounding tissues grows less, the contents of the sac are partly absorbed, and thus the compression which it had exerted diminishes. It is no wonder, therefore, that the physiological effects of the compression should be allayed or even disappear. Naturally this period of rest or absolute silence can give no occasion for diagnosis; but when the functional disorders grow active again, which may not be for months or years, then the record of the cerebral disturbances which had first

[1] A Manual of Diseases of the Nervous System. London, 1893, p. 485.
[2] Berliner Klinische Wochenschrift, 1891, p. 1164.
[3] Ibid., 1893, p. 887.
[4] La Nuova Chirurgia sul Sistema Nervoso. Napoli, 1894, vol ii., p. 282-283.
[5] Traité de Pathologie. Paris, 1894, 7ème édition.

arisen, and then disappeared or considerably lessened, might have great importance in the forming of a judgment. No less valuable would be the statement that some of the most important etiological influences had acted upon the organism of the patient. But in laying stress upon the past history we must not forget that these facts may be lacking even in cases where the action of the common causes of the abscess had not been wanting; sometimes the memory of the patient, sometimes the little importance one attributes to certain facts, is the cause of the deficiency of bygone data; but, above all, it must be borne in mind that the most insignificant occurrences, such as rhinitis or one of the commonest and slightest infective diseases, are enough to furnish the stimulus required to bring on a cerebral abscess. Another important consideration is the character of the cerebral disorders manifested at the "recurrence," as I may call it. The latent chronic abscess can increase rapidly and give rise to functional disorders; but these, being produced by the acute increase of intracranial pressure, have no special feature in the case of an abscess. At other times, however, the pus succeeds in escaping from the capsule which for a long time has retained it, insinuates itself into the healthy brain and inflames it, indeed, sometimes reaches the meninges or the ventricles, in which case symptoms occur which arise not from the abscess, but from acute encephalitis, severe meningitis, or from the breaking of the pus into a ventricle. In all these cases there is, nevertheless, the simultaneous action of a rapid increase of cerebral tension, but the preceding processes have some distinctive traits. The danger of confusing such effects of chronic abscess lies entirely in the possibility of being ignorant of the pre-existence of a cerebral lesion, for it is easy to mistake encephalitis or meningitis as being the first symptoms. If, on the other hand, the pre-existent lesion is known, the predicted succession of events increases in value, for neither a neoplasm, a parasite, softening, nor hæmorrhage is enough to give rise to acute inflammation of the brain and meninges.

A fortunate conjunction of symptoms for diagnosis of chronic abscess would be the following. A patient who, some time before, has been exposed to some condition which would cause an intracranial abscess, relates that he has suffered from headaches, fever, vomiting, slight delirium and stupor, or even simply tells us that he had had an illness which had been known as influenza or typhoid fever or rheumatic fever; that he recovered, but had remained slightly anæmic, with headaches now and again; that his mental activity seemed less, his memory less good, and his strength not so great; that, nevertheless, these facts had not been considered otherwise than as attributes of a state of health only relatively good. But suddenly phenomena arose which bespoke acute cerebral lesion, with a normal or, better still, subnormal temperature, regularly interrupted by slight elevations of temperature. The suspicion of an abscess which had arisen in the brain would then be absolutely rational. Or that a moderate and continuous fever sets in; the functions of certain cranial nerves suffer in a serious way, and through a peripheral lesion; and epileptiform fits occur,—then the diagnosis of chronic cerebral abscess which has reached the meninges becomes quite probable. The value of such a past history would, without doubt, be great; it would almost give us the clue to the source and ulterior changes of the abscess. Unfortunately, in real cases either this history is wanting altogether or exists only in fragments of which the wisdom and caution of the medical practitioner will not permit him to avail himself. But if the history is altogether devoid of suggestion, little can be got from the facts which are offered by the present state. I think that the first cause of the symptoms, even in the abscess, is the mechanical action exerted upon the healthy brain; but this action is common to many other morbid states. Some affirm that the abscess does not exercise so strong a compression as the tumour, but that answers only for small abscesses; it is enough to have seen the brain of one who has died of suppurative encephalitis to be persuaded that the compression may be extremely great. There are others who maintain that the elements of the brain are destroyed by the abscess, and that this is not so much the case with the neoplasm; therefore, the abscess would offer more symptoms of failing function (Ausfallsymptome) than does the tumour. The latter would seem to compress and irritate, not destroy. But even such an affirmation as this is not always true, for the tumour can also destroy. The not infrequent latency or semi-latency of the abscess proves that symptoms of imperfect function do not prevail in it. Symptomatic differences are more to be expected from the diversity of action which morbid processes, essentially different in themselves, must exercise on the surrounding nervous elements. But this scientific presumption is by no means sanctioned by clinical experience. It has been said that the headache belonging to abscess is circumscribed; but the fact is rare, and when it does so happen the headache depends more upon the local pachymeningitis than on the abscess; and since local pachymeningitis may often have other causes, the headache caused by it is not altogether to be attributed to an abscess. Others would wish to give greater importance to pain on percussion of the head, but even this fact rather reveals the participation of the dura mater and the bone—a participation which can also occur in neoplasms and produce the same effects. A slow pulse and Cheyne-Stokes' respiration have often been noticed, but these symptoms seem to depend solely on the increased pressure on the bulb. The power which abscesses possess of increasing intracranial pressure, as I have repeated several times, is the attribute of many other morbid processes of the brain. Perhaps the prevalence of abscesses in the cerebellum, and perhaps, too, large abscesses in the temporal lobe, might more easily account for a more direct pressure of the purulent collection upon the centres of the heart and respiration, but in any case it is certain that this phenomenon may equally belong to all other processes which increase intracranial tension.

The pretence of bringing forward symptoms of interference with function to strengthen a diagnosis of abscess would scarcely warrant mention were it not for the fact that we meet every day with some writer who relates that, guided by these phenomena, he was able to discover the presence of an abscess in the brain. It is evident that we are treating of happy coincidences, not of rational judgments. What is a symptom of interference with function if not an impaired function of some part of the brain? And why would this loss of function be the effect of an abscess and not of the other morbid states, which, like the abscess, can alter the physiological conditions of that area of the organ which governs it? At the best, one can but say, on behalf of this distinction, that if the symptoms of interference pointed to the cerebellum or the temporal lobe, such a fact would favour the diagnosis of abscess, because this latter has a great tendency to develop in the two aforesaid situations; but everyone must see the fallacy of such an argument. The opinion which can be formed on the degree of lesion of the optic nerves is, perhaps, more accurate. I never remember to have seen an absolute amaurosis caused by abscess, except in the last stages, yet it is not infrequent in cases of tumour. Many also affirm that the optic nerves are more often injured by the presence of a neoplasm than by an abscess; but I know nothing of the proofs of this. On the other hand, it seems true that the changes in the ocular fundus are less pronounced in abscess (Gowers). B. von Beck attributes this difference to the different duration and intensity of the compression and of the venous stasis, but even here I must note that an abscess may last as long and compress as much as a tumour, if it is chronic and large. It has already been said that abscess more often than tumour causes unilateral lesion of the optic nerves corresponding to the affected half of the brain; but among the few cases narrated by me there is an example which precisely indicates not only the absence of this tendency on the injured side, but exactly the contrary. Besides this, I have had occasion to see a case of real Leber's "papillitis," so that, considering how in a cerebral tumour the lesion of the optic nerves varies from the greatest papillitis down to the slightest papillo-retinitis and to normal conditions, it is necessary to note that the different degrees of alteration in the optic nerves happen also in many cases of abscess. It is remarkable that Korner,[6] although he writes of the most favourable cases being preceded by otitis, also affirms and demonstrates the "diagnosis of cerebral abscesses preceded by otitis is, as a rule, often impossible." To demand, therefore, a sure diagnosis, or even a very probable one, of chronic abscess of the brain shows an imperfect knowledge of the clinical facts which concern it, and means that either we must deliberately renounce the cure of even one of these patients, or that we must resign ourselves to explorative craniotomy. The merit of having dared most belongs to Horsley, Macewen, and the English surgeons in general, but their example has not yet been imitated by many physicians or many surgeons. Even

[6] Die Otitischen Erkrankungen des Hirns. Frankfurt am-Main, 1894, p. 111.

an illustrious surgeon like Bardeleben leaves a young man of twenty-six, for whom a diagnosis of abscess was made, to die, because the abscess was probably multiform and seemed extensive;[7] and a clever physician, Baginsky, referring to the treatment of cerebral abscess by means of trephining, says frankly that "he did not wish to submit the patient to operation until the phenomena were absolutely imperative (*absolut dringend*).[8]

Why refuse the operation? Why delay it even when diagnosis advises it? The excellent results obtained by Macewen are probably owing to speedy and frequent operation. Comparing the results of the treatment used in one of the most renowned surgical clinics, that of Heidelberg, one finds a marked difference between them and the most fortunate "experiments" of the Glasgow surgeon. From among eleven patients for encephalitis who entered Czerny's clinic during the last four years, one only was speedily operated upon, and was the only one to recover. The other ten all died, notwithstanding the fact that five of them had been operated upon by skilful hands. It is certain that if the pus is not removed till it has already devastated the brain, these devastations alone are enough to kill the patient. A probably perfect diagnosis is the guide for operation, the surgeon may perform it in a masterly fashion, but for the patient the operation will have become useless. Scientific exactness must then give place to practical utility. If there are surgeons who withhold their help to patients whose last chance it is, we must believe that they do so through fear of doing more harm than good. Is this fear justified? Bergmann has admirably demonstrated the perils of craniotomy, but successive experience has lessened the degree of danger. Even in the extraction of large tumours Brahman and Czerny have proved that the operation can be successfully performed. But cerebral abscess presents even fewer dangers than a tumour. I know that even to surgeons sincerely devoted to antisepsis it is not always given to avoid purulent meningitis. These cases are few, however, and will certainly diminish as precaution is greater; they may even entirely disappear. When we think of the wretched state of one who carries a mass of decomposition in his brain we can scarcely imagine anything worse for him. Incision of the brain, when performed with all the precautions which have rendered modern surgery so efficacious, is not succeeded by ill effects, even if the abscess be not evacuated—indeed, even in these less fortunate cases it may diminish suffering—nor can we always ascribe the benefit that ensues to the process for which, as a palliative, Horsley recommended puncture of the brain.

Professor Bergmann refers to Drummond's attempt to find an abscess which really existed. Well, he narrates that "trotz mehrfacher Punctionen" on the day after the operation the patient was conscious, his speech had returned, convulsions ceased, paralysis was gone, and yet the abscess had not been reached by either of the punctures.[9] The eminent clinician also mentions one of his own patients in whom several punctures made to a considerable depth did not succeed in reaching the abscess. Nevertheless, the condition of the patien remained unchanged for three days, after which pus began to issue from one of the channels opened by the cannula.[10] Czerny operated on a young man in whom he had made the diagnosis of abscess in the cerebellum, but found in the cranium neither pus nor anything else abnormal. After two months, whether in consequence of this operation or in spite of it, the young man was quite cured of the disturbances which had made them suppose an abscess existed, and which they afterwards interpreted as dependent on Menière's disease.[11] We could easily multiply facts by similar cases, but it is only needful to refer to one more. It belongs to Barker, and is also quoted by Bergmann.[12] Barker, believing an abscess to exist in the cortical centre of the facial nerve, applied the crown of the trephine not only once, but twice, to the motor region, but found no pus. Firm in his convictions, he tried it a third time further back, and found the abscess in the temporal lobe, and cured his patient. Facts like these show that even where the diagnosis of situation is mistaken the intention of the treatment might follow. The condition of the abscess in regard to explorative craniotomy is more favourable than that of the tumour, not only because its situation in the deeper parts is no obstacle to its treatment, but also because puncturing offers us a valid means of correcting an erring diagnosis of its site. In the very first words of his treatise, Starr asserts that if the diagnosis of the nature of a cerebral process and of its seat cannot be certified, the surgeon must not be asked to operate; but when he comes to speak of abscess, he repents, and says that "even if the seat is uncertain it is the duty of the surgeon to explore."[13]

Truly admirable was the work of a bold and clever modern surgeon. Here is an example: On Sept. 15th, 1891, Macewen operated on a lad of sixteen years in whom cerebro-spinal meningitis had been diagnosed. He opened the mastoid and the base of the cranium to discover the dura mater corresponding to the under part of the temporal lobe. The dura mater and pia mater were incised and the exudation evacuated. The second operation was on Oct. 3rd. The dura mater was laid bare over the lateral sinus and the cerebellar fossa, a cannula was inserted in the temporal lobe, but no pus was found. Four days later a third operation was performed. The dura mater was again opened and the cerebral tissue once more perforated; the abscess was found and its cavity cleansed. But on Nov. 19th it was necessary to operate for the fourth time. A bony disc was removed from the squamous portion of the temporal bone, the dura mater again opened, the superficial cerebral tissue again incised, and another abscess emptied and its cavity washed. Notwithstanding a chronic pachymeningitis, an acute leptomeningitis, encephalitis, and two consecutive abscesses, the patient recovered.[14] I shall never tire of searching. Where this is possible, what excuse can be made for the physician who resigns himself to the disease or death of curable patients? I seek in vain for any reason, practical, moral, or scientific, which can absolve one who renounces the privilege of saving another's life.

My worthy colleagues, I, too, have opened the skulls of patients in whom I had correctly diagnosed tumours or abscesses, but have refrained from giving you their history. It would have been certainly less humiliating to me and perhaps less tiresome to you. Secure in your indulgence, I have preferred this more tedious way to reach a conclusion which may be of practical use. It is this. Physicians and surgeons, we must apply our skill more largely to the benefit of the patient; those who suffer from brain diseases have not yet learned to consult the surgeon rather than the physician. It therefore rests with the practitioner to hold his mind always open to the suspicion of chronic cerebral abscess and to invoke the brotherly aid of the surgeon; but it is as yet irrational to ask that he shall be all-knowing of the real state of things and pretend to perfect precision; the surgeon must accept the arduous honour of completing both diagnosis and cure. In this way hundreds of sufferers who now die will be restored to life. In times when we so often see the harm produced by irrational hysterectomy and ovariotomy, need we still so much dread exploratory craniotomy, which promises such great results? No one can so well respond to this as yourselves, an assembly of men who live to think and to act. I invoke your instruction. Individually, the field of experience is too restricted to carry out this beneficial reform in practice; collective work is necessary; and if my words have had power to convince you I can hope for no wiser and more cordial coöperation than that which you have it in your power to give.

[7] Berliner Klinische Wochenschrift, 1891, p. 155.
[8] Ibid., p. 1144. [9] Loc. cit., p. 23.
[10] Loc. cit., p. 53. [11] Loc. cit.
[12] Loc. cit., pp. 72-73.
[13] Loc cit. [14] Macewen: Op. cit., p. 162 et seq.

ON SUPPRESSION OF URINE IN DIPHTHERIA.

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THE discovery and the recent extensive adoption of the antitoxin treatment have stimulated the study of diphtheria from all points of view. This paper, commenced upwards of a year ago, deals with certain of the symptoms of that disease, and its publication is prompted, not by the rarity of the cases recorded in it (for, in truth, such cases are common enough), but by the facts, firstly, that little attention has hitherto been paid to them, and, secondly, that of late the suggestion, if not actual assertion, has been made

both in this country and in Germany that these very symptoms—amongst which anuria is prominent—are due to antitoxin.

CASE 1.[1] *Diphtheria, faucial and nasal; total suppression of urine for nearly seventy hours before death.*—The patient was aged nine years. She was first taken ill on Oct. 22nd, 1893, and was admitted into the Eastern Fever Hospital, Homerton, on Oct. 25th. She was suffering from a malignant type of diphtheria; there were intense injection and œdema of the fauces, on which there was a thick sheet of membrane. There was a discharge from the nose, and the breath was fetid. The cervical lymphatic glands and cellular tissue were much swollen. The temperature on admission was 101°F.—Oct. 26th: She is in the same condition. The urine contains a good deal of albumen. The morning temperature was 99·4° and the evening temperature 100·4°.—27th: She has been sick four times during the night, the vomiting bearing no relation to the taking of nourishment. The pulse is 102. The patient states that she feels better, but she is actually in a critical condition. The morning temperature was 99·4° and the evening temperature 100·2°.—28th: The patient has passed no urine since 8 P.M. on Oct. 27th; before that she passed plenty of urine. The pulse is 108. 3.30 P.M.: The pulse is 72, irregular. The urine contains a good deal of albumen. 11 P.M.: The pulse is 94, a trifle irregular. The patient has only passed four ounces of urine during the day. The morning temperature is 98·6°, and the evening temperature 99·6°.—29th: No more urine has been passed; the pulse is 100 and the respiration 16. Since 7 A.M. a few red pimple-like spots have appeared on the legs. The morning temperature was 97·4° and the evening temperature 98·4°.—30th: This morning the patient is sitting up in bed knitting; she looks much better, but she is reported by the nurse to have had a very bad night, having been constantly trying to get out of bed. No more urine has been passed, even when the bowels have been moved. 12.45 P.M.: The pulse is regular and 64. The nose is blocked with thick mucus. There are patches of membranous material about the palate, uvula, and neighbouring parts, mixed with blood; these parts are in a very dirty and sloughy-looking condition. The patient is stated to have been sick thirteen or fourteen times during the night. The swelling of the cellular tissue of the neck is, if anything, less. 10.15 P.M.: She has passed no more urine. The patient sleeps much and is not so restless as she has been. The pulse is 60, irregular. The patient has been sick once during the day and once this evening. On the last occasion she brought up altered blood. 11.45 P.M.: The pulse is 66. The morning temperature was 97° and the evening temperature 98·4°.—31st: To-day there is hæmorrhage from the vagina and rectum; there is some bleeding from the gums, and a foul sanguineous discharge runs from the nose. The child is very drowsy, but wakes up and talks occasionally. The pulse at the wrist cannot be felt. She has passed no more urine. The bowels acted five times during the night. The heart sounds are faint but normal; action irregular, 72 per minute. Last night there was twitching of the left arm; this has not occurred again. The patient vomited nine times during the night; the vomited matter was like coffee grounds. At midday the child was sitting up in bed; she was quite conscious and stated she felt better. 5.15 P.M.: Drinks all return freely through the nose. The bowels have been opened seven times to-day. There is on the inner side of the right eye a small subconjunctival hæmorrhage. The pimple-like spots on the legs have become larger, and some have given rise to small pustules. A few similar papules and pustules have come out on the trunk and upper extremities. Small petechial hæmorrhages can be seen in the skin of the neck. At 7.50 P.M. the child became convulsed. There were twitchings of the muscles of the face and upper limbs, but not of the lower. These twitchings continued till death, which took place at 8 P.M. The morning temperature was 97° and the evening temperature 97·6°.—The bowels acted seven times during the last twelve hours of life; there was no urine passed on these occasions—in fact, no urine was passed for the last sixty-nine hours of life.

Necropsy, twenty hours after death.—The skin was very anæmic and waxy-looking; rigor mortis was well marked in the lower and less so in the upper limbs. The fauces were in a sloughy, blood-infiltrated condition, and it was difficult to see where membrane was attached, as it much resembled the tissues around. There was no membrane in the larynx or lungs; the latter were normal. The heart and vessels were normal; there were no petechiæ on the pericardium. The cervical glands were swollen. In the tissue of the neck, chiefly about the sterno-mastoid muscles, there were patches of blood extravasation. There was also extravasation of blood into the tonsils and surrounding tissues. The œsophagus was healthy. The stomach contained eight ounces of partially digested blood; its mucous membrane was much congested, and beneath it there was general extravasation of blood; there were no ulcers. The intestines were normal; there was nothing in the rectum to account for the hæmorrhage during life. Here and there in the small intestines was a little tarry-looking material. The spleen was normal and not at all enlarged; the liver, pancreas, and adrenal bodies were normal. Numerous petechiæ and several extravasations of blood were scattered about between the layers of the peritoneum; there were also extravasations in the retro-peritoneal cellular tissue. The kidneys weighed five ounces and three-quarters. The capsules stripped easily; to the naked eye the only change was in the cortex, which appeared to be slightly thicker than normal. One small extravasation of blood was found on the surface of one of the kidneys; the pelves and ureters were normal. The bladder was quite empty of urine, and contracted; in its lower and front part there was a dark submucous blood extravasation. The uterus was normal.

CASE 2. *Diphtheria, faucial and nasal; total suppression of urine for fifty-seven hours before death.*—The patient was aged four years. She was first taken ill on July 24th, 1893 and was admitted to hospital on July 28th with exudation on both tonsils and uvula. July 29th: The patient is seriously ill. There is a free, thin, slightly offensive discharge from the nose. The cervical glands on both sides are enlarged. 11.45 P.M.: She has spat out some large pieces of membrane. There is no albumen in the urine.—July 30th: There is a fairly thick sheet of membrane on the left side of the palate.—31st: The fauces are covered with membrane; the cervical glands are still enlarged.—Aug. 1st: The patient has been vomiting to-day. There is a thick precipitate of albumen in the urine.—2nd: The fauces are much swollen and injected, and upon them are small patches of membrane. There is a blood-stained discharge from the nose and mouth. The patient has passed no urine since 4 P.M. yesterday. As far as can be made out the bladder is empty. She has been vomiting frequently. The pulse is 96, regular.—3rd: She has passed no urine since the last note. She is very restless and is constantly vomiting. The pulse is 66, regular. There is no œdema anywhere. The patient is quite rational.—The child died at 1.10 A.M. on Aug. 4th. No more urine was passed. There was nothing particular to note concerning the temperature in this case.

Necropsy.—The kidneys were described as being "slightly swollen and a little congested."

CASE 3. *Diphtheria, faucial and nasal; almost total suppression of urine for nearly forty-two hours before death.*—The patient was a boy aged four years and a half. He was admitted on the evening of Dec. 15th, 1893. He had sore-throat on Dec. 13th. On his admission the fauces were found to be a little red; no membrane was to be seen; there was a nasal discharge and the breath was foul. The glands on both sides of the neck were enlarged. The patient did not seem to be seriously ill.—Dec. 16th: The urine is free from albumen.—17th: The patient has become much worse. There is now a large patch of membrane on the left anterior pillar of the fauces, left tonsil, and left side of the soft palate. The glands are larger.—18th: The condition is as yesterday; but the urine contains albumen.—19th: The patient passed about six ounces of urine at about 6 P.M. yesterday; none has been passed this morning. He vomited once yesterday, and twice in the night. There is a large patch of membrane on the left side of the palate, extending to the left tonsil. This patch is very thick and looks like wash-leather. There is a quantity of nasal discharge, which is offensive. The urine is loaded with albumen. Midnight: He has vomited twice this evening; he is pale; the extremities are cold; no more urine has been passed since last night. The nose is blocked. The pulse is about 90, regular, and very small at the wrist. The patient is now very drowsy, but has been wide awake all day. There is slight oozing of blood from the nose. The patient remained in a drowsy condition after the last note was made until the time of his death, just before noon the next day, Dec. 20th. The bowels acted three times, and he passed about half an ounce of urine with the stools, which was all he passed

[1] From Guy's Hospital Reports, vol. l.

within the last forty-two hours of his life. There was also vomiting on three or four occasions during the last twelve hours, independently of food. The temperature was 102° F. on the evening of Dec. 16th, 100° next day, and afterwards normal. A post-mortem examination was refused.

CASE 4. *Diphtheria, faucial and nasal; total suppression of urine for twenty-two hours, partial for some days before death.*—The patient was aged three and a half years. She was first taken ill on July 21st, 1893, and was admitted on July 22nd. She did not appear to be seriously ill. There was a casing of membrane round the uvula; the edge of the right side of the soft palate was irregular in appearance and was bleeding slightly. There was a thick nasal discharge. The urine was loaded with albumen.—July 23rd: There is less membrane. The amount of urine is diminished.—24th: The fauces are as yesterday. The urine contains much albumen. Eleven ounces were passed to-day.—25th: The patient has been vomiting. Pulse 102. There is no membrane now. Ten ounces of urine were passed to-day.—28th: The patient is constantly sick. There is no membrane, but there is an appearance as of ulceration along the edge of the palate and uvula. 9.30 P.M.: The patient has been sick several times during the day and has passed no urine since the early morning, when six ounces were passed. Pulse 104, regular. The child is much worse.—27th: Pulse 92. The patient is still vomiting. Six ounces and a half of urine were passed at 5 A.M.—28th, mid-day: There has been less vomiting during the last twenty-four hours. Pulse 92. The patient has only passed seven ounces of urine since the last note. The urine contains much albumen. Fluids return through the nose when the patient drinks.—29th: The pulse is irregular. The patient is very drowsy. She vomits at times. Drinks return by the nose. 11.45 P.M.: Pulse 108, very small; heart quite regular. There is a systolic apical bruit, and the pulmonary second sound is accentuated. Seven ounces and a half of urine have been passed to-day.—30th: The patient was sick last night after taking some jalap powder. She has been vomiting again this morning. Pulse 112, quite regular. There is a systolic apical bruit, but I cannot make out any cardiac dilatation. The urine is of a natural colour, but contains a considerable amount of albumen. Eight ounces were passed to-day.—31st: The patient seems worse to-day; her extremities are very cold. Pulse 120, regular. She has been frequently sick this morning. Ten ounces and a half of urine were passed during the day. The urine contained a thick precipitate of albumen.—Aug. 2nd: Vomiting is almost constant now. The child is extremely restless. She died at 3.40 A.M. in convulsions.—Four ounces of urine were passed at 5.30 A.M. on Aug. 1st; from that time till death no more. The patient's temperature varied from 97° to 99·8° F.

Necropsy.—Permission was granted only to remove the kidneys. To the naked eye these organs were quite normal.

CASE 5. *Diphtheria, faucial and nasal; partial suppression of urine for four days before death.*—The patient, a boy aged six years, was admitted into the Eastern Hospital on Jan. 3rd, 1894, in the afternoon. His illness began with vomiting on Dec. 29th, 1893, and there was sore-throat on the 30th. On admission there was membrane on both tonsils, which were swollen; the patient's breath smelt very offensively, and there was a copious thin discharge from the nose. The cervical glands on both sides of the neck were enlarged. The evening temperature was 100·4° F.—Jan. 4th: The pillars of the fauces and tonsils are swollen and injected, and their surfaces are marked by several superficial ulcers. Nothing was seen this morning that could be positively called false membrane. The tongue is thickly furred. The urine contains a heavy precipitate of albumen. Morning temperature, 100·8°; evening temperature, 99°.—5th: The urine is loaded with albumen; urates are present. At 1.30 P.M. the pulse was 124. Morning temperature, 99·8°; evening temperature, 100·2°.—6th: The urine is loaded with albumen. The patient vomited four times in the night. There is membrane to-day on both anterior pillars of the fauces. Morning temperature, 99·6°; evening temperature, 99°.—7th: Morning temperature, 98·6°; evening temperature, 98·4°.—8th: There is still a heavy precipitate of albumen in the urine. There is membrane on the uvula and lining the pharynx and tonsils. At 2 P.M. the pulse was 102. Morning temperature, 98·6°; evening temperature, 98·8°.—9th: Morning temperature, 98·2°; evening temperature, 97·8°.—10th: The patient is slightly drowsy. Pulse 65, weak, regular. He vomited twice in the night; he has become very pallid. The urine is pale and clear, and contains a flocculent precipitate of albumen. Midnight: Pulse 66, regular, soft. Morning temperature, 97·4°; evening temperature, 96·6°.—11th: The patient has vomited once during the night (after taking milk) and once this morning. He is not drowsy to-day, but is amusing himself with looking at pictures. There is still some nasal discharge. The pulse is very intermittent and soft; the heart intermits at every third beat. The rate is about the same as yesterday. There is only an opalescence of albumen in the urine. 5 P.M.: Pulse 62. The patient has vomited again once. Morning temperature, 97°; evening temperature, 96·8°. Midnight: Pulse, 58 to 60; respiration, 16.—12th: The pulse as counted by auscultation, 64. The heart is very irregular; there are occasionally no beats for a period of four or five seconds. The patient takes very little nourishment. He has vomited twice during the night and once this morning. There is some emaciation. The pulse cannot be felt at the wrist. There is a considerable amount of albumen in the urine, which is pale and clear. Some of the urine from the bottom of the vessel was microscopically examined, though there was no definite deposit. Nothing abnormal could be detected. Morning temperature, 97·4°. At 4 P.M. the heart-beats as counted by auscultation were 46 per minute, and regular in rhythm. The first sound of the heart was faint. The patient died at 4.35 P.M. He retched several times, and vomited a little brown fluid during the last half hour of his life. He was rational, though perhaps a little dazed, up to the end. Some difficulty in keeping him warm existed for the last two days, though he was wrapped up in blankets and had hot water bottles in his bed. During the last twelve hours he resisted all attempts to feed him. He had lost flesh rapidly, and the progressively increasing pallor was very noticeable. Towards the end the respirations were "sighing" in character. At different hours on Jan. 11th and 12th the pulse-rate was as follows:—Jan. 11th: 9.20 P.M., 58; midnight, 60. Jan. 12th: 3 A.M., 58; 6 A.M., 56; 9 A.M., 54; noon, 64; 3 P.M., 48; 4 P.M., 46. The amounts of urine passed during each day were as follows (opposite them are placed the pulse-rates):—

	oz.	Pulse.
Jan. 5th	18½	124
,, 6th	13 (about)	—
,, 7th	12	—
,, 8th	13	102
,, 9th	8½	—

	oz.	Pulse.
Jan. 10th	5	66
,, 11th	5	62 to 58
,, 12th	1½	58 to 46 (once 64)

The amounts passed between 8 P.M. on one day and 8 P.M. the next were measured, so that the above amounts commence from 8 P.M. on Jan. 4th. Only half an ounce was passed between 8 A.M. on Jan. 12th and the hour of death. The bowels were opened every day naturally, sometimes two or three times.

Necropsy forty-eight hours after death, by Dr. F. G. T. FOX.—There was some emaciation of the body, and the skin was very pale. There was nothing to be seen about the fauces that was undoubted membrane; there was a large crypt-like cavity in the right tonsil, opening by a large passage on to the free surface. The epiglottis and larynx were injected and raw-looking. The lungs, bronchi, and trachea appeared to be healthy. The kidneys, which weighed five ounces and a half together, had the pyramids congested. It was questionable whether the cortex was at all increased in size. The capsule peeled readily; there was no charge visible to the naked eye in the structures. The liver was much congested and of a deep purple colour. The heart and spleen were normal. The bladder was contracted and empty.

CASE 6. *Diphtheria, faucial, diminution in amount of urine.*—The patient, aged six years, was admitted on Aug. 5th, 1893, having been seriously ill since the day before. There was white deposit, not definitely membranous, on the left tonsil, and much swelling of the cervical glands. On Aug. 7th both tonsils were covered with whitish deposit. The following was the amount of urine passed daily from Aug. 7th to 20th:—

	oz.		oz.
Aug. 7th	11	Aug. 14th	14
,, 8th	17	,, 15th	17
,, 9th	10	,, 16th	12
,, 10th	7	,, 17th	15
,, 11th	12	,, 18th	14
,, 12th	12	,, 19th	17
,, 13th	15	,, 20th	20

From Aug. 10th to 21st there was albuminuria, but only once in any considerable quantity. From the 10th to the 13th the patient was croupy. On the 16th there was paralysis of the palate. Up to the 9th there was considerable pyrexia.

There was no vomiting. The patient recovered and left the hospital on Oct. 23th.

[I have not given the notes of the treatment of these cases, partly to avoid waste of space, partly because it was unavailing. But in these cases, as well as in those referred to in the following remarks, various local remedies were employed—among others, boracic acid, carbolic acid and iodine, chlorate of potash, bicarbonate of soda, and magnesium sulphite.]

REMARKS.

These six instances have been selected from the notes of many others of the same kind as examples of the class of case in which anuria occurs, and the manner in which it supervenes. The condition they illustrate is a common one, yet it is curious that the text-books say little or nothing about it. As far as I know, my former colleague, Dr. G. G. Morrice, was the first definitely to draw attention to the suppression of urine in diphtheria.[2] Cadet de Gassicourt does not mention it. Henoch, who speaks of "nephritis" in diphtheria, says only that one of the symptoms is a "diminution in the quantity of urine." Oertel[3] refers to fifty fatal cases of diphtheria recorded by Bartels, in most of which there were dropsy and suppression of urine. But, as is observed by Fagge,[4] doubt must be raised as to whether some, if not all, of these cases were not scarlet fever. Dr. Morrice refers to a paper by Dr. Gee.[5] Dr. Gee's paper was written to draw attention to the gravity of repeated vomiting in diphtheria; but in three of the cases he records it is expressly mentioned that the urine was scanty and in three others that there was evidence of renal affection. In two of Dr. Morrice's six cases no mention is made of the quantity of urine.

It will be observed that there are certain points common to the six cases detailed above. They were all severe cases, with much local affection. There was albuminuria and more or less complete anuria. In the fatal cases there was frequent vomiting, and death was due to cardiac failure. This combination of symptoms is common in diphtheria. Some time ago I analysed the notes of thirty cases coming under my notice during the years 1892 and 1893, in which anuria was present in a marked degree. All these cases save three were fatal. I shall have occasion to refer to them in the course of my remarks.

Anuria.—This may be partial or complete. In 7 of the 30 cases there was total suppression of urine for from eighteen to nearly seventy hours before death; while in 12 others suppression was nearly complete for from twenty-four to seventy-two hours. Sometimes the excretion of urine is suddenly arrested; at others the period of total or nearly total suppression is preceded by one of gradual diminution in the amount excreted. In all cases there is albumen, often in large amount. The urine is of normal appearance, and rarely is there any sediment. Blood is never present. I have known anuria to set in as early as the third, and as late as the tenth, day of the disease.

Vomiting is often present, and was observed in 23 of the 30 cases. In 15 instances the vomiting was frequent. In 7 of these 15 cases vomiting set in simultaneously with anuria, before it in 4 (one to three days before), after it in 4 (two to four days after). The vomiting is quite independent of the taking of food. Only occasionally is there diarrhœa, but constipation is common.

Symptoms of cardiac failure are nearly always present from the time when the suppression of urine commences. The radial pulse is soft and small, and the cardiac sounds are faint. These symptoms are usually of gradual onset. The pulse at the wrist becomes more and more imperceptible to the touch and may be quite indistinguishable for some hours before death. The pulse-rate may during the same time become lowered; in seven instances it fell to below normal, the lowest rate observed being 44 per minute; but absolute infrequency of pulse-rate is not a constant feature of these cases, though there is often relative infrequency compared with the rate observed earlier in the course of the disease. Irregularity of cardiac rhythm is occasionally met with.

Death occurs often by sudden cardiac failure; in seven of the thirty cases it was immediately preceded by convulsions. At other times death is by slowly progressive cardiac failure. The patient's extremities become markedly cold and his skin and lips pallid; his temperature falls below normal; he is drowsy, but can easily be roused, though he resents being disturbed. In these cases the end comes with such quietness that it is difficult to tell the exact moment of death. The fatal termination occurs most often on the seventh, eighth, or ninth day of the disease. In the thirty cases the extremes were the sixth and seventeenth day.

There is usually *much local exudation* upon the fauces. In twenty-three of the thirty cases there was evidence also of nasal diphtheria. The local exudation may entirely disappear before suppression of urine sets it. Even in cases where the exudation persists serious constitutional symptoms may not show themselves until the onset of anuria. To the inexperienced observer the patient may, in those cases where the membrane clears off and there is little if any vomiting, seem to be improving, and I have more than once had to warn a patient's relatives of the fallaciousness of appearances.

Post-mortem appearances.—In fatal cases of diphtherial anuria there are only two constant conditions observed at the necropsy, and they seem to be of little importance. The one is marked pallor of the skin and lips, the other a contracted and empty bladder. The kidneys are usually normal in every respect to the naked eye. Now and then they are paler than usual; very occasionally the cortex is slightly increased in width. In cases where the membrane has cleared off from the fauces before death there may be absolutely no morbid condition to demonstrate post mortem the nature of the disease.

What is the cause of these symptoms? The vomiting and pallor, taken in connexion with the albuminuria and scantiness of urine, suggest uræmia. Certainly anuria is enough to account for uræmia. What, then, is the cause of the anuria? It is stated by Dr. Morrice, in the paper to which I have already referred, that in the cases I am discussing the kidneys are found to be in a state of acute nephritis, and to this condition he evidently attributes the suppression of urine. He is supported in his view of the matter by the fact that certain other writers on diphtheria also speak of nephritis—Henoch[6], for example. On the other hand, Cadet de Gassicourt[7] (who twice in one short chapter talks of the *bénignité habituelle* of the albuminuria of diphtheria) declares that among upwards of a thousand cases of diphtheria observed by himself he saw only three fatal from nephritis, and Dr. Goodhart[8] states that the kidneys do not usually show any definitely marked change. There is thus much divergence of statement even as to facts. Now, clinically, these cases of diphtherial anuria differ widely from cases of acute nephritis. In the Eastern Fever Hospital, Homerton, into which very many patients suffering from scarlet fever or from diphtheria are admitted in the course of the year, there is ample opportunity of observing this difference. In acute nephritis hæmaturia, dropsy, pyrexia, convulsions (occurring during the course of the attack, and not merely just before death), and coma are common; in the anuria of diphtheria these symptoms are never met with. In nephritis there is usually recovery at the end of several weeks, or a chronic nephritis may result, and even in fatal cases death occurs after an illness of some duration, whereas in diphtherial anuria the usual termination is in death within a few days or even hours, and, in the cases which recover, recovery is always complete. In order to emphasise the difference between acute nephritis and diphtherial anuria I may mention that I have five times seen acute nephritis complicate an attack of diphtheria, and in these five cases the symptoms of the renal lesions were precisely the same as are seen in nephritis after scarlet fever. Lastly, treatment, such as is of great value in nephritis, is of absolutely no use whatever in the suppression of diphtheria. Clinically, therefore, diphtherial anuria is very different from acute nephritis. The evidence derived from the bedside is supported by that gained in the deadhouse. As I have already stated, to the naked eye the kidneys appear to be normal. With the microscope, also, little is to be found amiss. I have examined in this way ten cases, of which three were Cases 1, 4, and 5, described above. In some the kidneys were normal; in others there was a slight infiltration of the interstitial tissue with leucocytes, either around the Malpighian bodies or between the tubes; in two cases where fresh sections had been stained with osmic acid, slight fatty degeneration of the cells of the convoluted tubes was observed; but in another case which I have quite recently examined in this manner no such change is visible. In short, what

[2] St. Bartholomew's Hospital Reports, vol. xxviii.
[3] Ziemssen's Cyclopædia, English Translation, vol. i., p. 604.
[4] The Principles and Practice of Medicine, third edition, vol. i., p. 270.
[5] St. Bartholomew's Hospital Reports, vol. xxv.
[6] Lectures on Children's Diseases, Translation by Sydenham Society, vol. ii.
[7] Traité Clinique des Maladies de l'Enfance.
[8] Diseases of Children, fourth edition, p. 205.

changes are seen are variable and slight, and I would suggest that they are secondary to the greatly diminished flow of urine through the organs. The anuria is not, therefore, dependent upon nephritis. It is too marked to be due to either the vomiting (which is not always present) or the cardiac failure. I confess to being ignorant of its exact cause, and can only suggest that it may be due to the direct action of the poison (or poisons) of diphtheria upon the nervous mechanism that governs the excretion of urine.

A CASE OF TUMOUR OF THE CORPORA QUADRIGEMINA.

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AND
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CASES of tumour of the corpora quadrigemina are sufficiently rare to warrant the publication of one, which was studied for some weeks during life, and in which a post-mortem examination was obtained. We have collected about twenty cases of this condition scattered throughout medical literature, in some of which the tumour produced only partial destruction, while in others an extension of the growth involved neighbouring structures, such as the adjoining parts of the optic thalamus and the tegmentum. The case which we here record was characterised by the completeness of the destruction of the quadrigeminal bodies, with only slight implication of one optic thalamus and none at all of the tegmentum.

A piano-maker twenty-three years of age was admitted to the Hospital for Epilepsy and Paralysis, Regent's-park, on Sept. 6th, 1893, under the care of Dr. Guthrie, in the absence of Dr. Hughes Bennett, who has kindly allowed us to publish the case. The following history was obtained from the patient's mother. He had always been well until three years previously, when he had an attack of earache, followed by slight discharge from the right ear. The discharge lasted a few days only, and he had no further trouble from that source. In the second week of June, 1893, he complained of constant frontal headache, but he was able to continue work, and left London to take a situation in Birmingham on June 17th. On June 23th, the headache still persisting, he consulted Mr. Addenbrooke of Birmingham, who kindly sent the following particulars. "He complained of frontal headache and giddiness. He had no squint at that time, but it developed in a week or two. It was very difficult to get any family history from him, but I afterwards found out from his brother that he had lived rather a wild life, and that his father was an epileptic. ..... He had a good deal of loss of coördination of movement even then, which got worse. There was also complete absence of the knee-jerks, and the pupils responded slightly to accommodation, but not to light. He had more or less want of control over the excretions almost from the first. ..... He had no delusions whatever whilst under my care, and gave perfectly rational answers to all questions." There was no family history of phthisis or cancer. On admission to the hospital on Sept. 6th his condition was as follows: He was much emaciated (his mother stated that the wasting dated only from the onset of the present illness). He lay on his back with the legs extended. His head was retracted and turned to the right. He resisted with a frown of pain all attempts to move it in the opposite direction. His expression was dull and listless, though not indicative of pain; but if asked whether he was in pain he always answered "Yes," or nodded assent, placing his hand on his right temple to localise the site. There appeared to be some tenderness about the right occipital region and the right side of the neck. When raised to a sitting position he leaned heavily backwards, placing his hands on the bed behind him in order to support himself, but he would have fallen backwards unless held up. When placed on his feet he was unable to stand alone, owing to the inclination backwards. He could walk in short steps when strongly supported behind. The gait was not ataxic. There was marked convergent strabismus. From time to time he exhibited a sort of twitching movement of the eyes outwards, followed at once by a return to the convergent position. Movement outwards of the left eye seemed perfect, but the right eye never got beyond the mid position. Apparently there was paresis of the right external rectus coupled with spasm of both internal recti. This interfered with accurate investigation of other ocular movements, but the upward movements of the globes also appeared to be defective. There was no ptosis. The pupils were moderately dilated, the left being larger than the right. The right pupil reacted moderately to accommodation but doubtfully to light; reaction to either was doubtful in the left. Most intense optic neuritis was present in both discs. Beyond the paresis of the right external rectus there was no paralysis of any part of the muscular system. He would shut his eyes, show his teeth, and put out his tongue when asked to do so. There was no deviation of the tongue. The hand grasp was equal on both sides, though somewhat feeble. The right hand and arm were tremulous; he moved the limb vaguely about, at times seeming to grasp at some object in the air, then placing his hand on his right temple, interfering, as if unconsciously, with ophthalmoscopic examination. He would touch various parts of his face with fair precision when told to do so. He moved his legs freely in bed, but only at request. Deglutition was slow but perfect. Unless attended at regular intervals he had incontinence of urine. The bowels acted only after the use of enemata. The urine contained no albumen. The heart and lungs were sound. The pulse was regular and of good volume, but slow (52 to 60 per minute). The respiration was regular and deep (15 to 16 per minute). The temperature remained between 97° and 98° F. There was complete absence of the knee-jerks on both sides. The superficial reflexes, cremasteric and abdominal, were exaggerated. On tickling the soles of his feet the legs were drawn up spasmodically. He lay in a dazed, semi-conscious state, from which he could be roused for a time to answer simple questions, put out his tongue, and so forth; but his attention soon seemed to wander and was difficult to regain. His speech was slow but quite distinct. He would pause for several seconds before answering a question, but would eventually answer correctly and to the point; if more than a few questions at a time were asked, however, he would cease to reply. Occasionally he spoke of his own accord, and once when a conversation arose in the ward on a recent exhibition he said "I've been there." Asked if it was worth seeing, he replied with emphasis, "I believe you," but nothing further could be elicited from him on the subject. He noticed correctly that the ward clock struck an hour slow. When asked to build a piano for the ward he said, "You've no room for it." He recognised the smell of roast beef, and objected to the mutton on the ground that it was too rich. He read the time correctly from a watch held a yard before his eyes, but would not name various common articles shown to him. More accurate investigation of the special senses was impossible. Sensation to touch and pain, as far as could be ascertained, was normal; he winced when the heat test was tried, but would not say whether he felt hot or cold. Examination of the right auditory meatus showed signs of past catarrh, with thickening and opacity of the tympanic membrane, but no perforation.

The general symptoms were obviously those of cerebral compression. Of localising symptoms, the morbid tendency to fall backwards and the inclination of the head to the right (which afterwards varied, the head being sometimes equally strongly diverted to the left) suggested a cerebellar lesion; while the tenderness of the right occiput pointed to the right cerebellum as the most likely site of disease. The diagnosis rested between tumour and abscess of the cerebellum, causing general pressure. The balance was slightly in favour of abscess, owing to the history of past aural disease. But the affection had been trivial, and the signs of its existence were few. There was no perforation of the membrane, no history of persistent discharge, and there had been no rigors. No history of syphilis could be obtained, and no signs of its presence were found; but on the chance that his condition might be due to gumma it was decided to treat him with increasing doses of iodide of potassium. During the next four weeks his condition remained practically unaltered, except that he wasted rapidly. The temperature was almost persistently subnormal, varying between 97° and 98°, but at times rising one point above normal. The pulse rate averaged between 60 and 70 per minute. He never vomited after admission. His appetite remained good. Mastication was slow and imperfect, accompanied by little or no lateral movement of the jaws. Deglutition was

unimpaired. At the suggestion of Dr. Althaus, who kindly saw the patient on Oct. 12th, strong counter-irritation by means of tartar emetic ointment was applied to the right occiput until active inflammation of the scalp was produced. This caused a rise of temperature of from one to two degrees above normal, but no beneficial effect was produced. On Nov. 1st, at Dr. Hughes Bennett's suggestion, it was decided to trephine, the operation being performed on the following day by Mr. Pearce Gould.

A trephine opening was made behind the right ear so as to expose the right hemisphere of the cerebellum. As nothing was found either superficially or on probing, the opening was enlarged anteriorly and the posterior part of the cerebrum brought to view. Here, again, there was no evidence of any localised morbid condition. The patient recovered temporarily from the effects of the operation, but remained dull and apathetic, and death ensued on Nov. 8th, 1893.

Necropsy.—There was a slight milkiness of the cortical pia arachnoid, with increase of the cerebro-spinal fluid and matting of the membranes over the base. On opening the brain there were noticed considerable dilatation of both lateral ventricles and excess of the ventricular fluid. A hard, somewhat nodular swelling occupied the position of the quadrigeminal bodies, and extended into the left optic thalamus. The optic thalami, quadrigeminal region, and pons were prepared for minute investigation. This examination showed that the tumour extended from the junction of the posterior and middle thirds of the left optic thalamus as far back as the posterior border of the testes. It involved the posterior part of the left optic thalamus and merely pressed upon, without implicating, the right thalamus. It destroyed both anterior and posterior corpora quadrigemina, the right bodies being less implicated than the left. It invaded the grey matter around the Sylvian aqueduct, and passed up to and involved the dorso-mesial part of the subthalamic region on the left side only. The tegmentum pontis et cruris was unaffected. The left lateral fillet, in its course to the left testis, was involved by the tumour. Histologically the tumour was an angio-sarcoma of apparently rapid growth.

Remarks.—The two outstanding features of tumour of the corpora quadrigemina are an unsteady gait and oculo-motor paralysis. The former is usually described as being that of a drunken person, resembling the gait of cerebellar disease rather than the heel walk of the ataxic. As the disease advances walking becomes impossible without support. Even in the later stages, however, there is no loss of power, unless from extension of the disease the motor tracts in the cerebral peduncles are involved either directly or from pressure. The oculo-motor palsy consists rather of symptoms in the region of the third and fourth nerves than in that of the sixth, which, indeed, is not unnatural, considering that the position of the abducens nucleus is some distance posterior to the testes. Paralysis of convergence, ptosis, and loss of the upward movement of the globes are the chief phenomena noted in the cases of this disease. Apart from these two symptoms, we would call attention to the fact that vision is not materially altered, except by the condition of optic neuritis, which is a constant feature in the cases. This supports the dictum of Nothnagel[1]: "that visual acuity may be unimpaired in these cases may be stated without fear of contradiction." The difficulty of testing audition in these cases is very great, owing to the mental apathy and listlessness commonly present. It would seem, however, from a review of the cases in which this was carefully tested, that hearing is impaired on the side opposite the lesion, or in bilateral cases on the side opposite that which is most affected. Tremors, chiefly of the arms on voluntary movement, have been observed in other cases as well as in our own. They have been described as similar to those met with in disseminated sclerosis. They are probably due to an extension of the tumour growth into the tegmentum and optic thalamus. The knee-jerks are as a rule exaggerated in these cases; but, as not infrequently occurs in cerebellar disease, they may be abolished even from an early date, as happened in the case here recorded.

[1] Brain, 1889, p. 21.

MRS. CHARLES HALL has given £2000 to the Chelsea Hospital for Women in memory of her late husband, Major Charles Hall, formerly of Her Majesty's 1st Life Guards.

NEUROLOGICAL FRAGMENTS.

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(*Continued from p. 1473, vol. II., 1894.*)

No. XIII.

FITS FOLLOWING TOUCHING THE HEAD.—A CASE PUBLISHED BY Dr. DUNSMURE (1874).

I RECORDED[1] the case of a boy who had what I thought to be fits analogous to those artificially produced in guinea-pigs by Brown-Séquard's well-known methods. The boy fell down and had certain symptoms to be presently mentioned when his head was touched. A discussion followed the reading of the paper, in which Dr. Hadden, Dr. Hughes Bennett, Dr. Ewart, Mr. R. W. Parker, Dr. Beevor, Mr. Brudenell Carter, and Mr. Victor Horsley took part. I find that Dr. James Dunsmure, so long before as 1874,[2] published a case in all essential respects like that of my patient. Dr. Dunsmure has been so good as to give me particulars of his patient subsequent to 1874. I have no knowledge of the progress of my patient since the time of publication of his case.

Dr. Dunsmure's patient was five years of age (I refer to the boy's condition in 1874, until I mention his later progress). He began at the age of two years and a half to have attacks when his head was touched, and continued to be subject to them; they increased in frequency and severity, lasted about five minutes, when perfect recovery took place. He did not lose consciousness in them. (*Vide infra.*) Three months ago he was noticed to lose power in the *right* arm and leg during the attack. He could not speak except that he could say a few words with "o" in them, as "horse," which he calls "oss," "open," "ope." Yet he understood any word that was said to him. "He hums several Scotch airs very correctly, and is very fond of music." Dr. Dunsmure writes further (I italicise some words):—"On touching any part of his head sharply *when he is unaware of it*, he immediately falls to the ground, perfectly powerless, though quite sensible, and remains lying for a minute or more till he is able to rise again. The first time I saw him, the muscles of the right arm and leg were slightly tonicly convulsed; but that is the only time I ever noticed any approach to a convulsion. His mother told me that once or twice, when he had had a very severe fall on a day when he was particularly sensitive to attacks, she noticed slight tremor of the right arm or leg, or of both legs alone. During an attack he occasionally cries; the eyes are either half-shut or open, the pupils are unaffected; the face is generally flushed, but it sometimes becomes very pale a short time afterwards, and the arms fall to the side. The sphincters are never relaxed. On days when he has had a number of attacks, the hands are very unsteady, and shake a good deal. He has a tendency to fall to the left side; sometimes the right arm and leg are quite powerless, and remain so for a minute or more, and then recover, while he generally raises the affected arm up with his left hand. Within the last three months he has used the left hand more than the right for doing anything, as feeding himself, &c., &c.

"It is not necessary for a second party to touch the head to induce an attack, for he frequently causes himself to fall while playing with a piece of paper or a ball, if it happens to come in contact with any part of the head; or even when touched suddenly with his own hands, or in feeding himself, if the spoon comes against his face. Combing his hair is a frequent cause of an attack. On being made aware his head is to be touched, he is able to withstand the attack even if a severe knock is given. He is generally in the greatest spirits, playing and romping about with other children; but some days he is irritable and dull, and on those days he is particularly subject to attacks. On the *posterior part of the head* there are generally *one or two swellings*, due to the falls he receives. Tapping him over the spine, especially in the dorsal region, causes him to start, and the right arm is jerked slightly away from the body. While eating anything hard he sometimes falls; for example, if given a lozenge or a bit of

[1] Transactions of the Medical Society, vol. x., 1887.
[2] Edin. Med. Jour., October, 1874.

sugar, he bites it very cautiously, evidently afraid of it breaking, which, if it does suddenly, he either starts or falls down.

"Galvanism applied to the head produces no attack, nor does the sudden application of heat or cold. Any sudden noise has no effect. When his head is touched during sleep, his whole body starts violently, and in about a minute or less his face becomes paler, which appears to me to be very much the same phenomenon as is produced when he is awake, only he is in the recumbent position, and is not able to fall. He drags his right leg very slightly on walking, and on going upstairs he always puts the left one up first. The digestive system is in good order; tongue moist and clean; urine normal; heart and lungs quite healthy; pulse 100; temperature 98·4°. Dr. Argyll Robertson kindly examined the eyes for me with the ophthalmoscope, and found them quite healthy. During the last six months he has improved very much, the attacks are neither so numerous nor so long. At present they rarely last above a minute.

"It is extremely difficult to know whether there is at the time of fall a momentary loss of consciousness or not. If attacks have been induced when he is sitting, I have noticed his head falls forward for a second, and then immediately recovers itself, during which time he may have been unconscious, or the falling forward of his head may have been entirely due to the loss of voluntary power."

Dr. Dunsmure brought the case before the Edinburgh Medico-Chirurgical Society a few years later. He has obligingly given me by letter particulars of the boy's progress since 1874. Before giving these further details I will remark on the resemblances of my patient's case to that Dr. Dunsmure had previously recorded.

In both cases the patients did not fall when touched on the head if they were aware that they were to be touched. In both cases attacks were producible during sleep. In both attacks were produced by accidental contacts during play, &c. In both there were one-sided symptoms, right in Dr. Dunsmure's patient, left in my patient. In my patient during the attacks, or soon after at least, the eyes turned to the right (evidence, I think, considering that the left limbs were affected, that the attacks were ponto-bulbar, "lowest level," fits) and there was stoppage of respiration for a few seconds. It was not certain that in either case there was loss of consciousness in the seizure. I thought there was in my patient's attacks and Dr. Dunsmure thinks there may have been in his patient's attacks.

I now give the further particulars with which Dr. Dunsmure has supplied me, as to his patient's progress in and subsequently to 1874. It will be seen that the patient had epileptic fits as well as the slighter seizures which for distinction are called "falls."

"During the summer of 1874 the 'falls' were incessant owing to his having been taken out in the hot weather, but they diminished when he was kept in the house. He had to be confined to bed the next summer for a short time, owing to the heat and the frequency of the falls. On March 5th, 1876, he had a nocturnal epileptic fit, and another in a month. After the fits began the 'falls' diminished till August, when the weather was hot, they were so frequent he had again to be confined to bed. He had only one fit to Sept. 11th. From then to Oct. 12th, 1876, he had only one fall and four fits of shorter duration; his right side was paralysed for a short time after each of them, the arm hanging by the side. He had a good many fits and no falls till January, 1877, when he had a bad fit in the morning and six falls in the first fortnight of that month. He had several fits to March, in which he would awake screaming out that he is falling and the mother fancied that, by giving him a slap on the back if she was in time, it stopped the fit. He was put on large doses, twenty-five grains, of bromide three times daily and he had only one fit for many months. In February, 1878, his mother drew my attention to the fact that when his attention was directed to something else and on his then getting a sharp blow on the back his right arm lost power for a minute or two. I saw this; the power returned in about two minutes. On the 31st I saw him again, and his mother stated that on the 20th, when going down the stair, a girl struck him on the back a severe blow with a stick. He ran back to the house and took a fit which lasted five minutes.

"In January, 1880, he had a fit which lasted ten minutes, the right side of the body was paralysed for a quarter of an hour afterwards. For a year or so afterwards fits were brought on by blows on the back. When he had bromide in large doses regularly he was always much better and was often for months without fits. I do not think there is anything more to say in the case, for after the regular development of epilepsy I did not see much of the case after I made my last communication to the Society till his death.

"The patient died of peritonitis, 1892. The brain was examined by Dr. Bruce, Pathologist to the Royal Infirmary.

"There was no change or disease in the pons or medulla or in any part of the brain, except the cortex. The grey matter was somewhat sodden in appearance and many of the cells were vacuolated."

A SUCCESSFUL CASE OF PARACENTESIS PERICARDII.[1]

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A MAN aged thirty-four years, married, came to the out-patient department of the Brompton Hospital on June 6th, 1894, and was admitted by my colleague, Dr. Habershon, under my care, on account of severe dyspnœa. On admission there was extreme dyspnœa, both respiratory and expiratory. The face was pale, ashy, and bedewed with a cold clammy sweat. The expression was anxious. A superficial and rapid examination revealed the presence of a pulse of high tension, and hypertrophy and dilatation of the left ventricle. There was œdema of the bases of the lungs, without signs of general bronchitis, and a small pleural effusion on the right side. The urine contained a small quantity of albumen. The case was regarded as one of granular kidney with asthma probably of uræmic origin. A hypodermic injection of a quarter of a grain of morphia was at once given, and in about twenty minutes the dyspnœa had almost disappeared and the patient expressed himself as feeling fairly comfortable. He was then ordered to take liquor trinitrini, one minim, every four hours. Under this treatment he continued to improve. Occasional asthmatic attacks were successfully treated by inhalations of amyl nitrite. As soon as his condition permitted the following note was taken. "Family history unimportant. Previous history: Painter's colic in 1884, and an attack of hæmoptysis in 1889. Ailing three years with cough and occasional hæmoptysis. Present illness began at Christmas, 1893, with hæmoptysis, followed by recurring attacks of paroxysmal dyspnœa. The patient is pale and is still somewhat dyspnœic. Maintains a sitting or semi-recumbent position day and night. Pulse 98, of medium size, regular tension much increased, artery hard. Heart apex beat at lower border of sixth rib half an inch external to the nipple line. Impulse forcible and diffused. Dulness begins at the fourth rib on the left side and extends outwards to the position of the apex beat. To the right the cardiac dulness merges in the pleural dulness to be subsequently described. Cardiac rhythm cantering, the first of the three sounds heard corresponding with the carotid pulse. Aortic second sound much accentuated. Lungs: On the right side in front dulness from the fourth rib downwards and behind from the angle of the scapula to the base. Over the dull area breath sounds weak and vocal fremitus diminished. At both posterior bases scanty subcrepitant râles. Breath sounds over left lung and upper part of right vesicular and loud. No rhonchi. Urine pale, acid; sp. gr., 1010; albumen, one-tenth; no casts. Ophthalmoscopic examination: Numerous small glistening white patches in the retina on each side external to the discs in the neighbourhood of the macula. Marked whitish thickening of the coats of the retinal vessels."

For the next fortnight there was little change. Asthmatic attacks were relieved by amyl nitrite as a rule, but occasionally a hypodermic injection of morphia had to be administered.—July 22nd: Dyspnœa has been increasing the last few days. The legs are now somewhat swollen and the signs of pleural effusion on the right side have increased. Paracentesis of the right pleura was performed, and sixty-three ounces of rose-coloured fluid were removed. Great relief was obtained, the dyspnœa diminished, and the œdema of the legs almost disappeared.—July 12th: Paracentesis had to be performed again as further effusion into the right pleura had occurred. On this occasion

[1] A paper read before the Medical Society of London on Jan. 28th, 1895.

forty ounces were withdrawn, the fluid showing the same sanguineous character as before. Again great relief was experienced, and for the first time the cantering action of the heart was replaced by the normal rhythm, the first sound being short, the second sound accentuated generally. After about a week the old symptoms returned, and on July 26th the patient complained of severe pain in the left side and was much distressed. A double pericardial friction sound was now heard over the whole præcordia, loudest over the right ventricle. Six leeches were applied to the cardiac region and speedy relief was obtained. A saline mixture containing ten minims of the tincture of digitalis and of the tincture of nux vomica, with three minims of liquor trinitrini, was now ordered to be given every four hours. Temporary relief to the dyspnœa was experienced, but the patient vomited occasionally—a symptom attributed to the digitalis. On Aug. 6th the patient had a sudden attack of dyspnœa and cardiac failure. He became pale and faint and his pulse was found to be very irregular and weak. After the administration of a hypodermic injection of ether and of brandy internally he rallied, but complained much of pain in the præcordial region and epigastrium. At bedtime an injection of one-eighth of a grain of morphia was given and the patient slept for a few hours. The next day the following note was made. "Dyspnœa marked. Respiration 32, shallow. Lungs: On the right side dulness reaches in front up to the third rib, and behind nearly to the spine of the scapula. Over the dull area weak breath sounds and diminished vocal fremitus. At the left posterior base slight dulness as high as the angle of the scapula, weak breath sounds, and some creaking. Heart: Œdema of the skin in the cardiac region, extending outwards nearly as far as the nipple on each side. Tenderness on pressure in this situation. Heart's impulse impalpable except at the apex, where it is fairly distinct. Apex beat in the same position as before—i.e., in the sixth intercostal space half an inch external to the nipple line. Cardiac dulness begins at the third rib on the left side, extending outwards and downwards as far as the apex beat. To the right the dulness is continuous with that already described in the examination of the lungs. Heart sounds very feeble; at the apex a cantering rhythm can be recognised; no pericardial friction. Liver much enlarged. Slight ascites. Urine: sp. gr. 1010; contains a trace of albumen. The excretion of urine had fallen during the last three days to twenty-seven ounces." The mixture containing digitalis was now discontinued and ten minims of tincture of strophanthus were ordered every four hours. It being now evident that the patient had pericardial effusion, instructions were given to perform paracentesis pericardii if his condition should become worse. The same evening the patient became very restless, the respiration was more laboured, and the pulse weaker. Accordingly at 9.30 P.M. paracentesis pericardii was performed by the house physician, Mr. R. M. Smyth, in the absence of the resident medical officer. A small quantity of cocaine was injected under the skin in the cardiac region, and shortly afterwards a trocar and cannula connected with an aspirating syringe were inserted through a small skin incision in the fourth left intercostal space, as close as possible to the edge of the sternum. The trocar hitched on the edge of the sternum, and after some little difficulty was carefully pushed through the intercostal space until it was felt to be in a cavity. The trocar was then withdrawn and the cannula was now felt to be lifted with each beat of the heart. A quantity of blood-stained serum was syphoned over through the exit tube of the syringe into a porringer. The cannula was gently moved about and the piston drawn out so as to obtain suction. Then fluid of a deeper red colour was obtained, but the cannula soon became blocked, so it was withdrawn and the wound covered with lint soaked in collodion. The patient was relieved at once, the pulse became stronger, and the apex beat of the heart came half an inch lower down than before. Five ounces of fluid were removed. On standing a layer of blood was deposited, the supernatant fluid presenting a clear claret colour.—Aug. 8th: The patient had a good night; he is less restless and in less pain. Respiration 30. The œdema of the chest wall has diminished. Pulse 120, stronger and regular. During the day the pulse-rate varied from 120 to 60, but in the evening it resumed its old rate, 120. The amount of urine passed in the twenty-four hours following the tapping rose to fifty-five ounces.—Aug. 9th: Fair night. Pulse 120, irregular. Cardiac dulness reaches up to the third rib. Rhythm cantering. Respiration 32. Urine, sp. gr. 1010. Albumen one-tenth.—Aug. 10th: The patient seems weaker. Pulse 80, very irregular. Strophanthus had to be discontinued on account of the vomiting it seemed to excite. A hypodermic injection of one-fortieth of a grain of strychnine was given in the morning. At 3.30 P.M. I saw the patient. He was then very dyspnœic and distressed. The respiration was 30. The pulse was 90, tension being lower than formerly. Intermissions, mostly coinciding with inspiration, occurred every sixth or seventh beat. The physical signs were unchanged. It was determined to resort to paracentesis again, the operation being performed by the resident medical officer, Dr. Stanley Ballance. The patient was placed slightly on the left side in a semi-recumbent position. After freezing the skin with ice and salt a small incision was made in the fifth intercostal space on the left side two inches from the sternum, and the trocar and cannula were then inserted. After slight aspiration had been employed the fluid was allowed to syphon over into a glass vessel, twenty-eight ounces being collected. The fluid had almost the colour of pure blood, and on standing some coagulation occurred. The specific gravity of the fluid was 1020. During the operation the patient was given a small quantity of brandy-and-water to sip frequently. After the fluid was withdrawn he expressed himself as feeling much easier. His colour improved, the pulse became stronger and less irregular, and the dyspnœa was obviously relieved. The area of cardiac dulness was not perceptibly diminished. On Aug. 11th the patient slept well in the recumbent position, which he had not been able to assume before. The œdema of the chest wall was less. The pulse was 88, stronger, but still irregular. The heart sounds were distinct at the apex, but fainter at the base; impulse was stronger. The quantity of urine excreted during the twenty-four hours following the operation rose to ninety-seven ounces. For the next month the improvement was maintained, though attacks of dyspnœa recurred from time to time. On Aug. 17th the cantering rhythm of the heart returned, the second of the three sounds now coinciding with the carotid pulse. The pulse became regular and regained its high tension. The ophthalmoscopic appearances underwent no further change. The physical signs in the chest remained the same. After the second tapping the patient was given a mixture containing iron and nux vomica. From the second week of September, when I went for my holidays, my colleague, Dr. Habershon, kindly took charge of the case. On Sept. 15th the patient's condition changed for the worse. The pulse became weaker, the dyspnœa increased, and the quantity of urine had fallen in two days from eighty-eight ounces to forty-eight ounces. The urine now contained one-fourth albumen, the sp. gr. remaining at 1010. As the area of cardiac dulness was thought to have increased slightly it was decided to tap the pericardium again. Paracentesis was performed in the fifth intercostal space on the left side just internal to the situation of the second puncture. No fluid could be obtained. From this time the patient gradually failed, the tension of the pulse fell, the restlessness and respiratory distress became greater, and the quantity of urine steadily declined. Frequent injections of morphia were required to relieve the distressing dyspnœa, but the patient sank and died quietly on Sept. 22nd, six weeks after the second tapping, consciousness being preserved to the last.

Necropsy.—There were recent pleuritic adhesions on both sides; the left pleura was adherent to the pericardium. The pericardial sac was entirely obliterated by adhesions, firm at the base but very soft towards the apex and lower part of the right ventricle. The pericardium was studded with numerous small hæmorrhages, old and recent. The heart (weight with pericardium twenty-three ounces) was greatly enlarged, the left ventricle being mainly affected, and its walls measuring nearly one inch in thickness. The muscle was rather soft. The cavity was moderately dilated. The valves were normal. The lungs were œdematous. There was slight marginal emphysema. There was no trace of tubercle. The larynx was œdematous. The kidneys (weight seven ounces and a half) were much contracted. The capsules were slightly thickened but stripped easily, leaving a granular surface. There were a few small cysts and some yellowish patches in the cortex, which was greatly thinned.

Remarks.—I have ventured to describe this case as a successful one for the reason that marked and immediate relief was obtained from paracentesis, and the improvement was maintained for fully four weeks, the patient's death being the inevitable result of advanced renal disease. Post-mortem examination showed that the pericardial cavity had been closed by adhesions. The case was, it will be admitted,

a very severe one—granular kidney with uræmic asthma, cardiac dilatation, retinitis, and sanguineous effusion into the pleura and pericardium. The fact that paracentesis pericardii gave unmistakable relief in so desperate a case is the best testimony to the efficacy of this mode of treatment. All who saw the case—and they were many—were convinced that but for the tapping the patient could not have lived many days. The first tapping, performed in the fourth left intercostal space close to the sternum, though it gave temporary relief only yielded five ounces of fluid. Accordingly on the next occasion the puncture was made in the fifth space two inches from the sternum. Dieulafoy recommends that the trocar be introduced at no great distance from the sternum, so as to avoid opening the pleura, but there was thought to be little danger of this occurrence in the present case as there were good reasons for believing that the pleura and pericardium were adherent. The greater success of the second paracentesis is largely to be attributed to the semi-erect position of the patient at the operation facilitating the displacement forward of the exudation, which, as so often happens, had gravitated to the posterior part of the pericardial sac behind the heart. The hæmorrhagic character of the fluid withdrawn from the pericardium as well as from the pleura is noteworthy, as pointing to the severity of the renal affection. The quantity of fluid removed on the second occasion, twenty-eight ounces, is rather large as compared with the average of cases recorded, though a much larger quantity has been removed in individual cases. It is, however, well to remember that the removal of a much smaller amount—e.g., four or five ounces—has been productive of excellent results in several cases that have been reported. The good effects of the tapping were manifested by the circulation, respiration, and secretion of urine. The rapid relief of the dyspnœa shows that this symptom was largely due to the mechanical difficulties under which the heart was labouring. Not less remarkable is the rise in the amount of urine that occurred. Thus, in the twenty-four hours preceding the first operation the quantity was twenty-seven ounces; during the next twenty-four hours fifty-five ounces were passed. After the second operation, on Aug. 10th, ninety-seven ounces were measured, and ten days later the quantity had risen to 137 ounces. No digitalis, strophanthus, or other diuretics were given after Aug. 9th, so that the diuresis can only be attributed to the improvement in the circulation brought about by paracentesis. The œdema of the skin in the præcordial region began to diminish as soon as the pericardial pressure was relieved, but it was some days before it had completely disappeared. The diagnosis of the pericardial effusion presented no difficulty. Although the pulsus paradoxus was not present in its typical form it was noted on the day of the second tapping that the intermissions of the pulse mostly coincided with inspiration. This condition could no longer be observed after the fluid had been removed, and it did not return. The repeated hæmoptysis that occurred early in the history of the case is worthy of note in connexion with the hæmorrhagic character of the effusions into the serous cavities, and with the fact that the necropsy revealed no disease of the lungs with the exception of slight marginal emphysema. I have met with several cases of pulmonary hæmorrhage in middle-aged and elderly people who were free from any sign of cardiac or pulmonary disease beyond slight emphysema, but in whom the existence of granular kidney in a latent form was highly probable. Referring to these cases in the discussion that took place at the Medical Society of London a few years ago on the late Sir Andrew Clark's paper on the Non-tuberculous and Non-cardiac Hæmoptysis of Elderly Persons, I ventured to attribute the hæmorrhage to a rise of pressure in the pulmonary circulation secondary to the high tension in the aortic system. When, as is usually the case in such circumstances, some degree of emphysema and general arterial degeneration coexist we must recognise the presence of conditions favourable to the production of pulmonary hæmorrhage. I still regard this explanation as simpler and more probable than Sir Andrew Clark's assumption of a specific lesion of the pulmonary arterioles and capillaries dependent on "the arthritic diathesis." In a valuable paper by Dr. Samuel West on a case of Purulent Pericarditis treated by Paracentesis and by Free Incision, with Recovery,[2] statistics of paracentesis pericardii are included, and many interesting points are brought out. Since this paper was published other cases have been recorded; but as Dr. West's conclusions still seem to comprise all the essential points I will now quote them in conclusion: (1) Paracentesis pericardii is not only justifiable, but an operation which may be safely undertaken with ordinary precautions; (2) the most suitable place for puncture is, in ordinary cases, in the fifth left intercostal space one inch from the edge of the sternum; but if the pleura be adherent the puncture may be made safely much further out, and even in the sixth space; (3) the instrument employed should be a trocar and cannula, with or without aspiration; and (4) the operation may be performed with advantage, not only in the pericardial effusions of rheumatic or primary origin, but also in those which occur in the later stages of general dropsy, if it should appear that the fluid in the pericardium is adding to the difficulties under which the heart is placed.

[2] Transactions of the Royal Medical and Chirurgical Society, vol. xlvi., 1883.

THE DIFFICULTIES OF PROGNOSIS IN INSANITY.[1]

BY HENRY SUTHERLAND, M.D. OXON.

EVERY practitioner of medicine is aware how difficult it often is to give a prognosis in ordinary cases of bodily disease. There is no point in our professional career which is so likely to endanger the opinion the public may have formed of our skill in diagnosis and treatment. It can, therefore, be easily understood that in all cases of mental disease this difficulty becomes much augmented, for the reasons that the patient will not assist us by describing his subjective symptoms, and will frequently complain that he is suffering from various bodily complaints of which there are no signs whatever. In forming an opinion about any given case of bodily disease we are usually asked: "Will the patient recover?" "How long will he be ill?" "Will the patient die?" "If so, how long has he to live?" And, of course, such questions as these refer just as much to the somatic troubles which may accompany mental disease; but in the prognosis of insanity we have to answer in addition the following style of questions: "Will the patient recover *mental* health?" "If so, how soon?" "Will he die of the *mental* disease?" "If he recovers, will he have another attack?" "If he remains permanently insane, will his life be a long or a short one?" The classifications which have been made of mental diseases do not throw much light on the subject of prognosis. Greissinger divides them under two heads—curable with functional disorder of the brain and incurable with organic disease. Maudsley drops an excellent practical hint in his subdivisions into emotional and intellectual insanity, emotional insanity being a condition in which horrible crimes are committed, while at the same time the public are unable to detect any abnormality in the intellectual faculties. But to my mind the rule of thumb employed at St. Luke's Hospital is by far the best foundation upon which we can rely for a really useful division of the subject. At this hospital curable cases are alone admitted. The medical officer is instructed to ask the friends who are applying for the admission of a patient: "What is his age? What is the duration of the attack? Is it the first attack or not?" and, lastly, "What is the form of mental disorder from which the patient is suffering?" One of the most important points in regard to prognosis is undoubtedly the age of the patient. Thurnam tells us in his statistics that "the probability of recovery is greatest in the young, and undergoes a regular diminution as age advances." Most writers look upon an attack occurring after the age of fifty as hopeless. Bearing this point in mind I gave a guarded but unfavourable prognosis in the case of a Member of Parliament aged fifty years who consulted me some years ago. His grandmother had committed suicide and his father had died insane. The patient had what he called "une idée fixe," a sort of modified delusion, with other well-marked mental symptoms. I certainly believed his case to be incurable. I prescribed rest, and I attended to his liver, which was much enlarged. Three months later he had completely recovered, and was able to make a long speech in the House of Commons. I must confess I was completely

[1] A paper read before the West London Medico-Chirurgical Society.

deceived on that occasion, as from the history of the case I had every reason to believe it to be incurable. As a contrast I may allude to the following case. A youth aged eighteen years was brought to me some time ago who was said to be a victim of self abuse. The late Dr. William Wood, who had a more profound knowledge of insanity than anyone I ever met with, pronounced the case to be hopeless. I did not agree with him; but I was wrong. In the course of time the patient so far recovered as to be able to start on a sea voyage. But the first night at sea he told his attendant that a horse had put his head in at the cabin window. After this he became violent, was placed in irons, sent home, and placed in an asylum. He is now under my care, having been insane for more than twenty years without any lucid interval. My opinion that his youth would save him from being a chronic lunatic turned out to be incorrect. The number of attacks a patient has had seriously affects the prognosis. A woman at the change of life consulted me. She had become depressed in consequence of having been left a large fortune unexpectedly, became suicidal, was sent to an asylum, and recovered. I prophesied that she would be a victim to recurrent melancholia. She went out and tried to keep house, but had not the strength to do so. She had a second attack and recovered. The patient went out again and got into the hands of two drunken women who swindled her. She had a third attack and returned to the asylum. She again left, and was taken in hand by another woman, and has had several attacks since. During one of them her brother and I endeavoured to persuade her to become a Chancery patient. She refused to take our advice, and she is now gradually drifting from a state of melancholia into one of hopeless dementia. On this occasion I was right. But in a case later I was not so fortunate. A woman had six times suffered from puerperal insanity and had been received into an asylum. When her seventh child was being thought of I advised that she should place herself under medical supervision as a boarder, and thus avoid the fatigues of the London season at this critical period. She passed through her seventh confinement without an attack. She had an attack on the birth of an eighth child. After that she was absent from her husband for two years, but after one year's absence from him a ninth child was born; a divorce was the consequence. Since then she has had children, and has remained perfectly sane on each occasion. My idea that she would end in chronic dementia has thus far proved incorrect.

The form of insanity is also of the greatest importance in giving an opinion. In Dr. Hack Tuke's Dictionary of Psychological Medicine there is an excellent article by Dr. Blandford giving the probability of recovery in every form of insanity. It can only be remarked here that acute cases as a rule are curable and that chronic cases are incurable. According to a very clever classification of mental diseases, drawn up by a committee of the Medico-Psychological Association, the following forms are incurable: general paralysis, epileptic insanity, senile insanity, paralytic insanity, and perhaps idiocy. In Dr. Mickle's work on General Paralysis of the Insane he mentions the names of not less than thirty-six writers who have published cases of recovery from general paralysis. In my own opinion a recovery from general paralysis, when the symptoms are well marked, never has and never will take place. In such so called recoveries either a wrong diagnosis has been made or the patient has left the asylum during a temporary convalescence and has been lost sight of. In the advanced stage the diagnosis of this disease is generally very easy. At least, so I and some others thought about a man whose case at the time attracted much attention in the psychological world. This patient's left pupil was always much contracted and insensible to the stimulus of light. The right pupil was much dilated. He had marked hesitation in his speech, more especially in his pronunciation of linguals and labials, which, as everybody knows, is very characteristic. I remember his delusions of grandeur very well. He said he had a horse which was going to win the Derby, that he was about to row for and win the Diamond Sculls, and that he had bought a four in-hand. The case was carefully watched, epileptic attacks and other signs of advancing disease being daily anticipated. At the end of three months the patient made a good recovery, was discharged from the asylum, and I have reason to know never had a second attack. It was found out afterwards that his hesitation in speech was congenital, that the contraction of the left pupil was due to an old iritis, and that the delusions of grandeur were only those which may be met with any day in certain cases of acute mania.

Any form of insanity associated with epilepsy is generally considered incurable. The exceptions to this rule are infantile convulsions, epileptic insanity at puberty in girls, and epilepsy after a prolonged and excessive use of alcohol. I was once sent down to Wales to rescue a lunatic who was being robbed of his property. He had been staying for some months in a low village inn, where, in order to conciliate him, he was supplied with unlimited beer. I found him reeling about with a glass of beer in his hand, which he sipped all day. I brought him up with great difficulty to London. On his arrival he had three distinct epileptic fits. We all pronounced the patient to be suffering from incurable epileptic insanity. In this we were wrong, as the patient for ten years never had another epileptic attack, the three on admission having been entirely due to drink. About the same time a woman aged twenty-eight years was sent by Dr. Buzzard suffering from epileptic mania. She commenced having these fits at about twenty-five years of age, and they were increasing in frequency every week. The diagnosis was clear and the outlook hopeless. After being in an asylum for some years she died from exhaustion, complicated with bronchitis. On this occasion we were all correct in our opinion.

A word as to idiocy. The prognosis in this form is most unfavourable, but more hopeful than might be supposed. Dr. Shuttleworth tells us that of patients discharged from idiot asylums after full training, 10 per cent. are self-supporting and more than 40 per cent. are capable of performing the ordinary transactions of life. Some years ago I was locum tenens at St. Luke's Hospital. As already stated, no incurable patients are admitted to this institution, and all patients are seen by the committee on their arrival. A male patient was brought into the board-room whose relatives had told us he was suffering from acute dementia. Two other medical men and myself were about to give directions as to the ward in which the case was to be placed, when a layman who had sat for many years on the committee exclaimed, "That is a congenital imbecile." I was sent out of the room to make further inquiries, and I found the layman was right, and that the three medical men, including myself, were wrong in their diagnosis. The patient was not admitted. An infant was brought to me by its parents about sixteen years ago. Forceps had been used at its birth, and the frontal bone had been compressed so that its form resembled the keel of a boat more than anything else. My prognosis was unfavourable. The girl is now eighteen years of age, can only articulate as a child of five years might do, and delights to play with dolls and to read childish books. She is quite incapable of doing any arithmetic or managing her own estate. It is impossible to describe cases illustrating points in prognosis in every variety of insanity, but we may take it for granted that in any patient in whom there is a regular periodicity in the attacks all hopes of cure are at an end. I have a woman under my care at the present time who suffers alternately from mania and dementia, each form of mental disorder lasting as nearly as possible nine weeks. I have also a man similarly affected. In most cases of *folie circulaire* which have come under my notice I have found dementia taking the place of mania more frequently than melancholia. Homicidal insanity is in my experience incurable. I was called upon some years ago to examine a man who had murdered his wife and two boys and also attempted to murder his two other children, but they refused to drink the poison he had prepared for them. The murderer then placed his own head on the line of a railway when an express train was expected, intending to commit suicide. He was rescued from this position by a pointsman. He was very much attached to his wife and the children he had killed, he had a good balance at the bank, and was in a good situation. He gave himself up and confessed all to the police. I had not the slightest doubt that the prisoner was suffering from the form of insanity known as "impulsive," which has been so ably described by Dr. Maudsley, and that he was an incurable lunatic. The judge, however, took a different view, informed the court that he would have no more murderers let loose on the plea of mental derangement, and was pleased to say that I had thrown dust in the eyes of the jury. After retiring for a few minutes the jury returned to the court, their verdict being "Not guilty, on the grounds of insanity." I visited Broadmoor Asylum some years later, where the prisoner had been sent, and found him to be one of the most maniacal homicidal patients in the institution, and also perfectly

incurable. The duration of the attack has naturally a great influence upon the chances of recovery. At the Retreat, York, 80 per cent. recovered who had been treated within the first three months of their attack. During the first year about 60 per cent. recovered. After the first year about 10 per cent. recovered. Dr. Thurnam says: "It may be stated fairly that six times as many cases recover within the first year as recover after the first year of the illness. After two years recovery is rare." Nevertheless, recoveries have been known to take place after six, ten, and even twenty years' duration. A woman was admitted to an asylum suffering from suicidal melancholia. Before she was placed under treatment she had gouged out her right eye with her thumb, in obedience to the command in the Bible, which says, "If thine eye offend thee pluck it out and cast it from thee." After some time the melancholic symptoms disappeared, and she settled down into what we considered to be a state of chronic incurable dementia. At the end of seven years she made a sudden recovery and was discharged perfectly able to manage her own affairs. In a long experience I have never known a case recover after so long a duration as seven years. I have had experience of patients, both male and female, who are still under my care after thirty, forty, and in one case fifty years. It is needless to remark that the prognosis is perfectly easy in such cases. With regard to sex it may be observed that a larger proportion of women than men recover. The numbers are 44 per cent. for females and 36 per cent. for males. One reason for this excess of recoveries on the women's side is that they are less afflicted with general paralysis than are the males.

I will now turn to somatic influences with regard to this subject. In my experience the prognosis in insanity from sunstroke is favourable in mild cases, but most unfavourable in severe cases. Sir Joseph Fayrer tells us that on post-mortem examination after sunstroke the brain and its membranes are found congested. My own idea is that when a person is attacked either slightly or seriously by *coup de soleil* the sympathetic circles of nerve fibres surrounding the arterioles become paralysed permanently, and in consequence the bloodvessels do not contract naturally. Hence a larger amount of blood is conveyed to the brain under even a slight stimulus, and excitement and mania result. I was once at a private ball at a seaside town. A young man entered the room, much flushed and talking loudly. He proceeded to pull the cornet out of the mouth of the player, lifted the hands of the pianist from his instrument, and pushed the violin from under the chin of the fiddler. He was expelled from the house, everyone saying he was drunk. He recovered next day, called on the hostess, and made his apologies in due form. This young man was an officer in the army and had had a slight sunstroke. He was a teetotaler, but feeling tired before the ball he took a glass of wine to revive himself, which went to his head and caused a transitory attack of mania. I had no reason to disbelieve his statement that one glass of wine produced these awkward consequences. But insanity from a severe sunstroke is a very formidable and incurable form of mental disorder. I had for many years an Indian general under my care who was one of the most dangerous patients it has been my lot to deal with. His condition was entirely due to a severe sunstroke he had sustained during an unusually hot summer in India. In such cases I have observed that there is a period of incubation. The symptoms most characteristic of the disease do not appear till some months after the exposure to the solar rays, although perhaps in the meantime a slight intellectual and emotional departure from the healthy standard may be observed. The catastrophe I am about to relate took place during the Indian Mutiny some forty years ago. The general had been told off to guard a certain number of commissariat waggons. His story, which he presented to me most modestly, has neither a clinical nor a pathological interest, but well illustrates how the mind may become unhinged even some months after a sunstroke has visited the patient. He said: "I was in command of a party of forty horsemen. We came suddenly upon a force of 400. It was a case of ten to one. It was my duty to retire, but I felt that murder was in the air. I gave the order to my men to charge. My trumpeter was shot down on the right of me and my orderly on the left of me. I cut my way in and I cut my way out. All perished except myself, and I thought I was well out of it." In these few words were expressed what appeared to me to be a most romantic episode of military life. Unfortunately there is a seamy side to the story. The general was tried by court-martial, and his behaviour was so eccentric on this occasion that a medical examination as to his state of mind was ordered. He was found insane and sent from India to an asylum, where he remained for twenty years and finally died an incurable lunatic.

I now pass to the prognosis in cases of alcoholic insanity. There is no class of cases which recover so rapidly as do those of acute alcoholic insanity due to one inordinate drinking bout, and there is no class of cases more incurable than that of patients who during a long course of years have soaked themselves day by day in stimulants. A captain in the Royal Artillery was admitted suddenly one afternoon to an asylum. He had indulged in an unusual amount of alcohol and had become mischievous and almost homicidal. He had taken his wife in his arms and had held her over the balcony of his house and threatened to dash her on the spikes of the area railings below. The police were called in, and he was certified and sent to a harbour of refuge. On admission he was in a state of violent mania and passed the night in the padded room. I visited him again next morning, and after a three hours' examination could find no indications whatever of mental aberration. He had completely recovered in one day, the recovery being simply due to abstinence from stimulants. By his own request he was detained as a boarder for a week as he said, to keep him from the drink. On his discharge he took more freely than ever to alcohol, and died six weeks later from delirium tremens. The prognosis was, however, very different as from even a temporary recovery in the case of a man aged seventy-six years whom I was sent for to attend one Sunday morning. He had for not less than forty years been in the habit of getting drunk frequently, although able to go down to his office in the City and manage his affairs fairly well. At last he became so unpresentable that his sons were obliged to protest against his taking any further part in the business. The unfortunate part of the case was that the man would neither die nor become insane. In France a *conseil de famille* would have been held to decide what was to be done with this worshipper of Bacchus. Unfortunately no such law obtains in England. I only saw him once, but I heard afterwards that his and his sons' business was going from bad to worse owing to his unfortunate propensities. In this case it was suggested to my mind that the law of China as to the treatment of lunatics might have been justifiably employed. In that enlightened country they have but one method. All lunatics there are treated by decapitation. I have before alluded to Dr. Maudsley's subdivision of mental diseases under the two heads emotional and intellectual insanity. Emotional insanity is a very important form to recognise. It is very rare. It leads to horrible crimes being committed by its victims. The intellect being nearly but not quite intact, it is impossible to persuade the relatives that there is anything wrong with the mind of the patient. The prognosis is usually most unfavourable in this form. I have a woman at present under my care residing in the house of a medical man. She has been insane for about five-and-twenty years. On one occasion a high authority on lunacy visited her and pronounced her to be perfectly sane. I asked him how long he had talked to her. He said ten minutes. I told him to go back and give her ten minutes more. In the course of the second ten minutes all the delusions and hallucinations came out, and he was obliged to confess that she was an incurable lunatic. This patient knows a great deal, but not all, about her investments and dividends, but ask her to describe a carriage accident or any place of amusement she has visited and she breaks down before the end of even a short narration. She indulges in the most filthy conversation, rendering it impossible for her to take her meals with the family. The case is incurable. I had another very curious case under my care a few months ago. The patient was a clerk in a Government office, engaged in the most complicated transactions during many hours of the day. Excess of alcohol was the root of the evil in his case. If he were in the public streets or an omnibus he fancied that people put up their hands to their mouths, stamped their feet, or made grimaces on purpose to annoy him. He had a brother and a wife, one of whom always accompanied him to and from the office. It was useless to tell him that they, who had met the same people in the street that he had, had never seen them do anything which might be construed into an insult. He became worse, and I obtained leave of absence for him for six months. My prognosis was that as long as he kept from drink he would be perfectly sane. He became a teetotaler and recovered perfectly. The extraordinary part of the case was that this man, affected with delusions of suspicion, was able

to carry on severe mental work all the time he was apparently insane. As to delusions generally, it may be said that if the patient has a variety of them, quickly changing and accompanied with noisy violence, the outlook is hopeful. Fixed delusions, existing for more than a year and continuing when the acute symptoms subside, mark the case as incurable. From among such patients we obtain our asylum kings and queens, who are content to work in the scullery or laundry during the day and assume Court dress or a regal crown when festivities take place in the evening; but of all delusions those that are progressive are the worst as regards prognosis. The general paralytic will commence by telling you he is going into Parliament, that he has been knighted, made a baronet, or created a peer, that he is the Prince of Wales, and finally that he is God Almighty Himself. This is an important point to be remembered in diagnosing a case of general paralysis from one of chronic mania. A great deal of light is thrown on prognosis by observing the postures and movements of the insane. I have a young woman at present under my care who sits all day with her arm over the back of a chair and her head leaning on it. This position has remained fixed during the day for three years. The outlook is hopeless. Another woman, young on admission, rubs her nose continually, making it very red. This she has done for many years. A man under my care walks round two flower-beds in the garden, his course taking the shape of the figure 8. He kicks anyone who gets in his way, but is otherwise harmless. One elderly man has for twenty years rolled a pocket handkerchief up in a ball and turned it round and round in his left hand. With his right he continually percusses his knee and thus wears out the cloth of his trousers in less than a week, necessitating endless patches. Hæmatoma auris almost always is found amongst chronic incurable cases. I have a woman with a marked swollen ear at present under my charge who will never recover. I have, however, seen hæmatoma in sane people, generally prize-fighters. I exhibited a professional boxer at the Clinical Society of London some years ago who had this peculiarity. Certain bodily complications have great influence on the outlook. For instance, the recoveries in puerperal insanity are very numerous, but if the case should be accompanied by albuminuria the patient almost invariably dies. If the patient should increase in weight, the mental condition remaining unaltered, the outlook is very unfavourable. A woman admitted in 1891 weighed 8 st. 13 lb., and on the third anniversary of her admission—that is, in 1894—she had increased in weight to 12 st. 2 lb. This was an increase of 3 st., or 1 st. a year. Her delusions are always the same—that she is suffering from various bodily complaints of which there are no tangible proofs. Syphilitic insanity in the early stage is fairly curable, but later ends in the death of the patient. I had an Indian colonel under my care for many years suffering from syphilitic mania. Not being satisfied with my treatment a very eminent physician was called into consultation. A third medical man, a friend of the patient, was present. The physician diagnosed the case as one of syphilophobia—that is, a delusion on the part of the patient that he has contracted syphilis. I made no remark and the physician departed. When he had left the room I turned up the patient's trousers and showed his friend, the third medical man, a large open brown syphilitic sore which the patient had had on his shin for many years. The patient died a month later. The condition of the blood in the insane is a great guide in giving an opinion as to how long a patient has to live. When I was at the Wakefield Asylum I examined under the microscope the blood of some hundreds of lunatics. The results were very satisfactory. It would take too long to enumerate them here, but I cannot resist mentioning one point which was to me very striking. I found that if, in general paralysis of the insane, a much larger proportion of white corpuscles as compared with the red was present, the patient was sure to die within four days, although he might apparently be in fairly strong health. This and my other observations have been confirmed by Dr. Lauder Lindsay and Dr. Rutherphail.

Before concluding, I should like to say a word or two about the diagnosis of recovery in a patient. Recoveries are always calculated on the admissions. According to Dr. Thurnam they may vary from about 25 to 50 per cent.; but, as I have said, at St. Luke's Hospital, where only curable patients are admitted, the number of recoveries reaches 60 per cent. Generally speaking a rapid recovery is likely to be succeeded by a second attack. A slow recovery is much more hopeful. Convalescence from insanity is indicated by quietness of mind in the patient: he speaks freely about his disease, he does not perpetually bother the physician as to when he is to leave the asylum, he asks to see his friends, and he returns to his usual employments. An outburst of weeping in females during an attack of acute mania is a good sign, as showing that the patient is aware of her condition. On the other hand, a contented state of mind points to increasing dementia. Esquirol remarks that many patients who are considered cured by their relatives are not so really. In this I quite agree. In proof of this I may mention that not less than three patients removed from our care by the wish of friends and contrary to advice committed suicide, one on the very night of his discharge. Patients are frequently sent back to me to be examined after they have left in order to ascertain whether or not they are capable of managing themselves and their affairs. A list of their former delusions is prepared from the case-book, and the patients are taxed with them one by one. The conclusions are drawn from their answers. Valuable information can also be got from the attendant who usually accompanies them as to their actions and habits being sane or insane since they left the asylum. In almost all cases three months after discharge there are still present traces of the old disorder. Frequently the patient looks lost and distressed, the angles of the mouth are drawn down, there is a general feebleness about the outlines of the features, and the bodily health is never quite re-established. They complain of great irritability and they are easily moved to tears. Their letters also eloquently express their undecided and vacillating state of mind. In females there is a weak smile on the face and frequent showing of the gums, the eyebrows are elevated as they speak, and there is a marked transverse corrugation of the forehead expressive of doubt and anxiety. But it is only by long experience and a careful examination of a case that we are able to determine from these rough rules what is to be done with the patient. The importance of giving a correct prognosis in cases of mental disease cannot be overestimated. Frequently large pecuniary interests depend upon our opinion—as, for instance, when a large sum is offered to the patient if his life is only to be a short one, as in general paralysis, or if he is to receive a pension if his life is to be a long one, as in chronic melancholia. The matrimonial prospects of both sexes are also much affected by the form of insanity and other points which have to be gone into when an alliance of this kind is contemplated. Cases of hysterical mania in young girls are very hopeful, as well as to recovery as to the *non*-probability of a second attack. Any girl who has had two attacks of insanity ought not to marry in my opinion. The parents of both parties will come to consult us on these difficult and delicate matters. One rule I always lay down in such cases, and that is that the sane contracting party should be told the whole truth about any previous attack from which the other may have suffered, and then if he or she choose to proceed with the engagement they do so with their eyes open and take the responsibility on themselves. The wife of a medical man during her engagement told her future husband that she had some dreadful secret to reveal to him. He thought she referred to some previous engagement. She said to me afterwards, "He little thought I had two asylums at my back," meaning she had been twice certified as a lunatic. Six weeks after marriage she became insane and remained so for many years, the unfortunate husband having all this time to maintain a wife who was worse than dead to him. Finally, our method of arriving at a correct prognosis may be compared to weighing in a pair of scales those points which, on the one hand, are in favour of, and, on the other, are against the chances of recovery in any given case, such points, however, not being estimated by their number, but by their quality. Experience alone can teach us the value of each individual point. But when the importance of the subject is considered it is surely our duty to neglect no opportunity of improving our natural powers of observation, and thus to be enabled by the accuracy of our opinion to confer health and happiness upon our less fortunate brothers and sisters.

Richmond-terrace, Whitehall, S.W.

MEDICAL MAGISTRATE.—Mr. Thos. E. Jacobson, L.R.C.P. Edin., M.R.C.S., has been placed on the Commission of the Peace by virtue of the office of chairman of the Sleaford urban district council.

"FIRST AID IN ELECTRIC ACCIDENTS."

BY W. S. HEDLEY, M.D. EDIN.

IN THE LANCET of Aug. 25th, 1894, there appeared an article on "The Pathology and Treatment of Electric Accidents." This was followed, on Sept. 15th, by a letter under the above heading. It was there suggested that the appearance of a short code of plain rules emanating from some authoritative source bearing on the treatment of persons suffering from electric shock would be useful and opportune. In the same letter several expedients were pointed to suitable for dealing with such emergencies. Since that time definite instructions on these points have appeared in various quarters. The *Electrical Review*, after consulting medical opinions, has formulated a set of clear and concise instructions, and the electrical department of the Midland Railway Co. has issued a more elaborate code for the guidance of its own employés. It is now reported that the French Academy of Medicine has been asked by the Minister of Public Works to offer suggestions on these points, with a view to their being formulated into rules by a special technical commission. It is evident that accidents of the kind in question must be regarded from an electrical as well as from a medical standpoint. The purely medical aspect of such cases is simple, and, roughly speaking, resolves itself into the application of d'Arsonval's rule, "Un foudré doit être traité comme un noyé," not forgetting at the same time that syncope, rather than asphyxia, is at times the prominent condition to be dealt with. If, however, the body of the injured person be still in contact with the electric circuit there are in the first instance points of an electrical nature to be considered. Three possible conditions of contact present themselves, one or more of which may exist at the same time: 1. The body by contact with two conductors of different potential may have short circuited the current. Such a contact is usually fatal at once. 2. The body in contact with one conductor may have taken a portion of the current to earth. In this case the gravity of the accident will depend upon the nature of the contacts between the body and the conductor and the body of the earth. 3. The body by being in contact with two points of the same conductor (e.g., by holding with both hands) may have become the seat of a derived or shunt circuit. This, by itself, is the least dangerous form of contact, but of course it becomes much more serious if, at the same time, a circuit be completed to earth through the body. Whatever be the nature of the contact, it is clear that the first thing to do is to stop the dynamo or switch off the current; and if the accident has occurred near the dynamo room or in the vicinity of a switch there will doubtless be someone present who can promptly do so. Failing this, however, no time must be lost, but means at once taken to detach the body of the injured man from the circuit. Here the "First-Aider" must, in self defence, adopt certain precautions, all of which may be summed up in the word insulation—insulation from the cable, insulation from the earth, and insulation from the body of the injured person. This means, in practical language, that the hands of the rescuer must be covered with some hastily improvised insulating material, such as several thicknesses of a *dry* garment, and he must at the same time stand upon something of the same kind, such as a heap of dry rags or clothing, or a board or dry straw.[1] With these precautions the rescuer may pull the body from contact with the circuit, raising if necessary that portion of the injured man's body which may be in contact with the ground. Whilst this is going forward there are several other expedients available which to the non-electrical mind are perhaps a little perplexing in their nature and variety. Amongst these may be enumerated the diverting of the current to earth by some conductor of low resistance, such as an iron rod or a wire of large capacity, severing the conductor if small enough by a cutting instrument with insulated handles, or if the injured man be actually in contact with both conductors, the current may be short-circuited close to the part touched by the body.

In considering the "lethal" effects of electric currents it is commonly supposed that the alternating current is more dangerous than the constant one. The Board of Trade regulations, as well as the rules of the fire insurance offices, seem to point to this, inasmuch as whilst the constant current is allowed to enter a house at 300 volts the pressure of the alternating is limited to 150. This seems to imply that the latter current is considered twice as dangerous to life as the former. If, however, it be remembered that the body is an electrolytic conductor, and that electrolytic conduction is invariably accompanied by decomposition, and further that, the living body not being homogeneous in its elements, and each different tissue thus forming a point of entry and of exit of the current with the accompanying electrolytic phenomena, it is obvious that a constant current of high voltage will on account of its electrolytic effects in the interior of the tissues be more dangerous to life, and its effects more difficult to recover from, than is the case with a current of an alternating character. Amongst the currents of commerce met with in this country are to be found constant currents having a pressure of 1000 volts.

Brighton.

[1] This improvised insulation supposes that indiarubber gloves and boots or mats are not at hand.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

POISONING BY COCAINE; RECOVERY.

BY E. J. WALKER, M.D.R.U.I., &c.

ON the afternoon of Jan. 11th I saw a healthy young man, under middle height and twenty-four years old, of whose illness the following is an account.

Being annoyed by toothache he had, about one o'clock that day, purchased from a druggist twelve powders, each supposed to contain fifteen grains of phenacetin. By a mistake of the dispenser he was given an equivalent quantity of hydrochlorate of cocaine—this I learned from the druggist, at whose request I undertook the treatment of the case. The patient, unaware of the error, divided one of the powders into two equal parts, and, putting one far back on his tongue, swallowed it in entirety. Having taken phenacetin on previous occasions he detected the difference, but when he wished to do so stated that he was unable to expectorate—at all events, he did not do so. I weighed the remainder of the fifteen-grain powder and as I found there were only six grains he must have swallowed between eight and nine grains of the drug. The effect, he said, was very rapid, a pleasant coolness spreading over his entire body, followed by a feeling of numbness in the mouth, tongue, and throat, changing very quickly to a sense of choking and desire to swallow, though he could not even perceive the presence of saliva. Returning to the druggist to inquire, he was given a stimulating draught; and still feeling queer, but in ignorance of what he had taken, he substituted a bowl of gruel for his ordinary meat dinner. Continuing to grow worse, he was sent home in a cab with the druggist, and on the way passed a large quantity of urine of a green colour. I saw him at his home at 5.30 P.M., and his condition was then as follows. He complained of a sense of constriction at the throat and over the heart; great difficulty in swallowing, but constant effort to do so; a dull, somewhat painful numbness (*sic*) in the stomach and abdomen; palpitation and an indefinite sense of oppression and mental dulness. I noted that the pupil light reflex was absent and that dilatation was present; the temperature was 97° F., and the reflexes were exaggerated; the pulse was almost uncountable. His appearance was that of a person partly under the influence of alcohol, but the most striking feature in the case was the state of the muscular system; he resembled a bad case of chorea, but the movements were much slower and more regular, the body was alternately rotated from side to side and bent at the same time, while the arms and legs were not still for a moment. A very strange effect was produced by uncontrollable action of the muscles of mastication. Owing to this he presented the appearance of a person chewing tobacco, and yet he was unable to eat a small piece of bread, and a cup of tea which he endeavoured to sip he spilled about the carpet. At times he showed some lividity round the lips and had difficulty in breathing. As the drug had evidently passed the stomach I did not attempt either to wash out that organ or to give an emetic; indeed, I fear that an attempt to do the former might have induced severe spasm. For the dyspnœa

I used nitrite of amyl capsules with immediate benefit, and as the bowels had not acted I placed one minim of croton oil and five grains of calomel on the tongue. At 10 P.M. a great change was apparent. The purgatives had acted well, four or five liquid tarry motions had passed, the temperature had risen to 100°, the face was bright and clear, and the mind intelligent, the choreic movements had quite ceased and the masticatory almost, and the sense of oppression and dyspnœa were gone. The next morning the man appeared to be quite well, but complained of slight weakness; two days after he was able to attend to his usual business.

Manchester.

AN ARTIFICIAL EAR.

BY H. N. GROVE, L.D.S.

A MAN sixty-three years of age was admitted into the Queen's Hospital, Birmingham, in April, 1893, with an epithelioma of the left auricle. The greater part of the

auricle was removed by Mr. F. Marsh. A plaster-of-Paris cast was taken of the side of the head. An artificial ear was built up in wax to match the healthy one on the right side, and was then made in vulcanite and aluminium, tinted and enamelled to harmonise with the complexion. No artificial contrivance (such as a spectacle frame) was made use of to support the artificial auricle, adhesion to the head being effected by means of a saturated solution of mastic in absolute alcohol.

Birmingham.

AN ATYPICAL ALBINO.

BY A. J. BALMANNO SQUIRE, M.B. LOND.,

SURGEON TO THE BRITISH HOSPITAL FOR DISEASES OF THE SKIN.

AN albino, although a rare, is nevertheless a familiar object, and, moreover, one of very undeviating type. Until the other day I thought that the type was absolutely without variation. I imagined that a person born with absolutely white hair and pigmentless skin (I am referring to those instances where the whole of the hair system and the whole of the skin are devoid of pigment) must necessarily have pink eyes and be unable to see clearly in bright sunlight, or, in other words, must needs be destitute of pigment in the iris and in the choroid; but, as it seems, it is not always so. A young man aged eighteen years, who has just come under my notice, is an albino. The whole of his hair system is white and the whole of his skin is pigmentless. He has presented this condition from his birth. However, the iris of each of his eyes is not pink, but, on the contrary, a very dark blue, and he can see as well in bright sunlight as he can at any other time. The glare of bright sunlight has never inconvenienced him in any way. In some instances of congenital complete albinism that I have met with more than one person in the same family has been affected. In one family a girl and two of her brothers were albinos. In this present case, however, there is but one albino in the family. He has four brothers and four sisters, one paternal uncle, three maternal aunts, and numerous cousins, but none of these relatives are albinos. His father has dark hair and his mother has flaxen hair. He presents a special condition, apparently in no way dependent on his albinism—which, however, is worthy of note, because I have met with it in at least one other albino,—and that is a constant oscillating movement of the eyeballs in the horizontal plane—that is to say, to and fro, from left to right and back again. The movement is so notable as to its range and so rapid as to its frequency that it is difficult to understand how he can acquire a clear idea of anything that he looks at; and he confesses that he does find it difficult to read print, but as to things in general he believes that he can see them as well as anybody else. I am not prepared to say whether this condition has or has not presented itself in every case of albinism that I have met with; for I had not taken account of the presence or absence of it (it not having arrested my attention) previously to the last two cases of albinism that I have seen—namely, this case and its immediate predecessor.

Weymouth-street, W.

ANKYLOSIS OF THE JAW OF LONG STANDING TREATED BY OPERATION.

BY E. N. NASON, M.R.C.S. ENG.

THE patient, a man thirty-nine years of age, received a severe blow upon the right side of the face in 1882. It is not certain what the exact injury was, but it seems probable that the zygoma and condyle of the lower jaw on the right side were both a good deal damaged. No treatment was adopted, but after some little time the jaw could be moved freely without pain. It was not until two years and a half later that some restriction of movement began to be noticed. This slowly increased, and in two years' time the jaw became completely fixed, so that the teeth could not be separated at all. He remained in this condition for nearly seven years, living on liquids and sopped bread, as the power of mastication was completely lost. He came under my care in December, 1893, and was then more than half starved. After feeding him up for a week or so I operated upon the jaw on Jan. 7th, 1894. An incision was made along the posterior border of the ascending ramus of the lower jaw on the right side from half an inch below the zygoma to the angle of the jaw and carried down to the bone. Very considerable thickening, which seemed to be both bony and fibrous, was felt behind the

zygoma and around the neck of the jaw. The ascending ramus was then cleared with a raspatory three-quarters of an inch above the angle of the jaw and divided, and a wedge-shaped piece of bone with the base of the wedge (half an inch) posterior removed. This was effected with some difficulty partly by a keyhole saw and partly by cutting pliers as the bone was more than usually dense. There was no trouble with the inferior dental artery. The patient made an excellent recovery without constitutional disturbance and was able to masticate with very little pain on the third day. The mouth could be opened to the extent of seven-eighths of an inch, and very good lateral movement was obtained. The patient kept up passive movements very assiduously, and was given a graduated wooden wedge on which to measure the extent of the interval between the teeth. This has not tended to lessen during the last year, and the patient has at present perfect masticatory power, with free and painless movement, both vertically and laterally. This operation, the risk of which is small and the chief difficulty of which is the division of the bone without splintering or unnecessary damage, seems much more generally successful than excision of the condyle. The latter, as shown by Mr. Paul Swain some time back in THE LANCET,[1] has many risks, and often a result which is by no means satisfactory.

Nuneaton.

A Mirror OF HOSPITAL PRACTICE. BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.* lib. iv. Proœmium.

WESTMINSTER HOSPITAL.

ADDISON'S DISEASE OF VERY RAPID COURSE; REMARKS.

(Under the care of Dr. DONKIN.)

THIS disease is one which has attracted the special attention of pathologists and physicians since it was first described by Dr. Addison. The communication by Drs. Alezais and Arnaud (summarised by Dr. Allen J. Smith[1]) is one of the most interesting recently published as a contribution to its pathology. They consider the process to be essentially one of tuberculous infiltration, the presence of tubercle bacilli having been repeatedly demonstrated in the affected supra-renal capsules. The process may begin in the cortex or in the medulla, and less often in the fibro vascular zone about the capsule. Changes may be found in the neighbouring tissues as the result of such processes in the supra-renal capsules, as alterations in the abdominal sympathetic nerve, changes in the mesenteric glands, tuberculous disease of the spine and lungs, and alterations in the kidneys and urogenital organs. They regard as being near the truth the view that ascribes the phenomena of the disease—especially the prominent nervous symptoms, such as the sudden and complete asthenia, the vomiting, the lumbo-abdominal pains, and often the sudden death—to alterations in the abdominal sympathetics. They think, however, that the pathological facts thus far established are insufficient to base any theory upon, as in a number of instances the abdominal sympathetic has been found quite normal. Of forty-nine cases met with, the abdominal sympathetics were quite healthy in twelve instances. They believe, however, that the nervous symptoms arise directly within the capsules themselves, and have found undoubted nerve ganglia in the periphery of the organ as a constant element, and state that these bodies are always implicated in the capsular lesion of Addison's disease although heretofore overlooked. They cite three cases in support of their view. In one there was marked tuberculous change all about these ganglia, which were, however, intact, and no symptoms of Addison's disease were present; in the second the pericapsular ganglia, as well as the left semilunar ganglion and branches of the solar plexus, were involved, the symptoms of Addison's disease being present; in a third the pericapsular ganglia were alone involved, the rest of the abdominal sympathetic system being intact, Addison's disease being manifest.

A man aged forty-seven years was admitted into Westminster Hospital on Nov. 12th, 1894, complaining of very frequent vomiting and great prostration, and died on Nov. 24th. He had been perfectly well, according to his own and his relatives' accounts, until five weeks before admission. He had had no previous serious illness, had not had syphilis, and was in all respects a temperate man. This illness began quite suddenly one day with pain in the epigastrium and vomiting about three minutes after a meal, since which time he had vomited after every meal and become steadily weaker. Three weeks before admission his legs began to feel numb, and he suffered from pains in the back and shoulders. On admission he was thin; his skin was generally of a dark, bronzed colour, most marked in the face, dorsum of hands, and axillæ, least marked in the lower limbs. There were a few dark patches on the soft palate and on the inside of each cheek and of the lower lip. In answer to inquiry he said that his friends had told him about a week or so before his admission that he was getting darker in appearance. He was very feeble and walked with difficulty; but there was no discoverable alteration of sensibility over the trunk or limbs, and no muscular paralysis. The pulse was very small and compressible, and the first sound of the heart markedly indistinct. The breathing over the front of the right lung was harsh, but the thoracic signs were otherwise natural. Nothing abnormal was discovered on abdominal examination, nor in the urine, which was, however, of rather dark colour. After his admission the vomiting ceased, and the man seemed to improve. On Nov. 20th, his bowels being constipated, he had a dose of senna mixture. His bowels acted, but he started vomiting again. The temperature, hitherto normal or subnormal, rose to 102·6° F. Next day the vomiting continued, and the temperature, after falling to normal, rose again to 104°, at which point it remained during the day following. The patient, however, then felt better, the vomiting having ceased. He talked cheerfully and said that but for weakness he felt quite well. On the night of the 23rd he slept well. On the 24th, at 6 A.M., he complained of cold feet, and shortly afterwards sat up in bed and "became quite rigid, while his breath was very short." Recovering from this condition, he seemed to be fairly well until 8 A.M., when his breathing became short again, and he died in a few minutes. There was a cloud of albumen in the urine on the last day.

Necropsy on the afternoon of the day of death.—The body was fairly nourished, rigor mortis being present; the blood was fluid and dark-coloured, drying quickly. There was general bronzing of the surface, least marked over the lower extremities. The larynx was normal, and the thyroid gland small. There were a few old adhesions over the upper lobe of the right lung, but elsewhere the pleura was quite natural. In both lungs were several discrete, large, and pigmented fibroid tubercles, but there was no breaking down. In other respects the lungs were normal, as also were the mediastinal glands. The heart's muscle was firm and very dark; all its structures were apparently normal. The abdominal organs were natural, with the following exceptions. There were a few large pre-vertebral lymphatic glands, with no tubercles discoverable by the naked eye. The adrenals were very large, and quite converted into fibro-caseous masses in which all traces of normal tissue were lost, though the general shape was fairly well preserved. (The semilunar ganglia were normal.) The kidneys weighed ten ounces. There was cortical atrophy of the upper half of the right kidney, the capsule around this portion being very thick and adherent to the subjacent areolar tissue. In other respects the kidneys were normal. The bladder was healthy, but in the centre of the prostate were numerous small and yellow caseous foci, clearly tuberculous. The prostate was not enlarged. The vesiculæ seminales were normal. The epididymis on both sides, especially the left, was much enlarged from tuberculous deposit, and there were tubercles in the body of the right testicle.

Remarks by Dr. DONKIN.—The most important clinical points in this case are the very definite onset of the first symptoms and the extremely rapid course of the expressed disease. After searching inquiry it was established that the man felt and looked perfectly well until a little under seven weeks before he died. The pigmentation, as is most often the case in the more protracted instances of the disease, was not observed until after the important symptoms of vomiting and prostration had been established for some time. The

[1] THE LANCET, July 28th, 1894.

rise of temperature a few days before death must be noted as a symptom of infrequent occurrence. With this may perhaps be associated as a possible cause the advancing tuberculous affection of the prostate, epididymis, and testicle. The tubercles in the lungs were probably the earliest change of all those revealed at the necropsy.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.

AN UNUSUAL CASE OF ADDISON'S DISEASE; SUDDEN DEATH; REMARKS.

(Under the care of Mr. PAUL STAR, senior house surgeon.)

TUBERCULOUS disease of the suprarenal bodies is an affection more common in men than in women, but the following case presents some other more important points of difference from the usual type, which mark it as especially interesting The most characteristic symptom of Addison's disease is the gradual development of debility without appreciable loss of flesh, and a sudden cardiac failure ending fatally without previous complaint of weakness is fortunately very rare. "It is probably not possible in any case to ascertain the exact date of the commencement of the disease; there are good reasons, indeed, for believing that the process of suprarenal degeneration is always far advanced before the clinical signs of the affection reveal themselves. Counting then from this latter date, the malady is sometimes remarkably rapid in its progress—proving fatal in the course of two or three weeks.—while sometimes it is prolonged for several years."[1] Dr. Leva[2] has described a case the duration of which was supposed to have been eight years. This case exemplifies the advantages and advisability of holding a post-mortem examination in cases of sudden death.

A girl seventeen years of age was admitted to the Clayton Hospital on Jan. 27th, 1894. She had fallen in the street while on an errand, close to the hospital, and was brought to the institution on an ambulance. At the time of admission she was unconscious, motionless, and very pale; she was perspiring slightly about the face and neck, and the surface of the body was cold. There was no rigidity, and the sphincters were unrelaxed. The pupils were somewhat dilated, equal, and reacted to light. The conjunctival reflexes were present, but feeble. The tendon reflexes were normal, and there was no ankle-clonus. Respiration was shallow and the pulse was imperceptible. The cardiac impulse could just be felt and the sounds very indistinctly heard. The heart-beat was 65 to the minute. No injury to the head was apparent, and there was no distinct odour of the breath. Half a drachm of sulphuric ether was injected over the cardiac region, and a few minutes later the pulse could be distinctly felt at the wrist. The patient was put to bed and hot-water bottles applied to the legs and sides. She completely recovered consciousness in about half an hour. The pulse and respiration rapidly improved. She answered questions as to her name, previous health, &c., and said she felt quite well enough to go home. The heart and lungs were found to be quite healthy. The urine was normal. The patient was kept in bed and given some warm milk and about half an ounce of brandy. In about three hours the pulse again began to fail rapidly and became irregular in force and rhythm, the respiration at the same time becoming short and shallow. Sal volatile and brandy were exhibited, but there being no improvement in the pulse a drachm of ether was again injected over the heart. This had no effect, and the patient died a few minutes after the injection, the time between the commencement of the second attack and death being about ten minutes. The patient's mother said that her daughter had always been a healthy girl until about three months before the present attack, when she had to leave her situation owing to continued attacks of abdominal pain and vomiting. These symptoms were considered to be due to derangement of the digestive functions and had quite ceased about two months after their first onset, and she had again gone to work. Her family had always been healthy, and there was no history of any hereditary disease.

Necropsy.—A post-mortem examination was made fifteen hours after death, when the body was found to be that of a well-nourished and finely developed girl. Rigor mortis was present in the lower limbs, but was passing off in the arms. There was no post-mortem staining, or pigmentation of skin, or mucous membrane, except below the umbilicus, where the skin of the abdomen was distinctly bronzed, forming a marked narrow line leading from the umbilicus to the pubes. The skin over the iliac regions was pigmented in a less marked degree. On opening the thorax the heart and lungs were found to be quite normal. The thymus gland was persistent and as large as that of a child twelve months old. It was normal in situation and weighed six drachms. The lobes were well marked. The abdominal viscera were normal. The stomach contained about half a pint of semi-digested food. The pelvic organs were normal. The adrenals were very large and tuberculated, hard to the touch, and on section showed no distinction between cortical and medullary substance. They cut like hard cheese and contained many cretaceous nodules, but no pus. Both the organs were surrounded by dense and tough connective tissue, and were bound down to the kidneys. The retro-peritoneal and mesenteric glands in their vicinity were enlarged and hard, but were normal in appearance on section. The semilunar ganglia and solar plexus were surrounded and compressed by fibrous tissue. The brain was normal. Microscopic examination of the adrenals showed the usual changes found in Addison's disease. Tuberculous growth was present in various stages; caseous centres were surrounded by small-celled infiltration with giant cells. A good deal of altered tissue was undergoing fibroid change. Sections of all other organs showed nothing abnormal. Unfortunately, the solar plexus and semilunar ganglia were not removed at the necropsy, so that a microscopic examination of their condition could not be made.

Remarks by Mr. PAUL STAR.—The chief points of interest about the case are—(1) the cessation of all symptoms for a month before death, the patient enjoying good health and following her occupation during that time; (2) the sudden death, this occurring about three hours from the time the patient fell in the street; (3) the presence of a large thymus; (4) the limited extent of the bronzing; and (5) there being no disease of other organs than the suprarenal capsules.

[1] Pritchard: The Theory and Practice of Medicine.
[2] Virchow's Archiv für Pathologische Anatomie und Physiologie und für Klinische Medicin, Berlin, Band cxxv., 1891.

ROYAL INFIRMARY, NEWCASTLE-ON-TYNE.

A CASE OF CUT-THROAT INVOLVING THE LARYNX TREATED BY SUTURING; COMPLETE PRIMARY UNION; REMARKS.

(Under the care of Dr. ARNISON.)

THE ordinary rules of surgery as recently understood and expressed in our text-books left very little room for the exercising of the individual skill and discretion of the surgeon in charge of a case of cut-throat. If there was one thing about which there was unanimity it was the harm done by the insertion of sutures in such cases, and the great responsibility resting on the surgeon who ventured to use them. Dr. Arnison's treatment of his patient shows the excellent result which may be obtained by judicious suturing. The condition of these cases is often most unfavourable for the primary union of wounds: miserable, depressed, the subjects of chronic alcoholism, melancholia, renal disease, heart disease, or chronic phthisis—every injury, even the slightest, becomes of moment. Then, again the wounds vary very much in extent, depth, irregularity of surface and number of structures divided, and if there is any septic accumulation in a closed wound cellulitis of a spreading kind, only too frequently fatal, may ensue within a day or two. It is therefore necessary to exercise a careful selection before attempting primary union. For the notes of this case we are indebted to Dr. W. E. Harker, house surgeon.

A man aged forty years was admitted into the Royal Infirmary, Newcastle-on-Tyne, having cut his throat one hour previously. The skin incision began at the anterior edge of the left sterno-mastoid and tailed off a little beyond a corresponding point on the right side of his neck. Parts of the following muscles were cut: platysma, omo-hyoid (anterior belly), sterno-thyroid and thyro-hyoid, exposing on the left side the trunk of the vagus, which was lying internal to and on the same level as the vessels, which were uninjured. The thyroid cartilage was completely severed just below the pomum Adami, giving a good view of the interior of the larynx. The cut edges of the cartilage came accurately

together, and were firmly retained in position by six catgut sutures. The divided muscles in turn were sutured over the cartilage. Deeply buried sutures were now inserted through the cellular tissue on either side of the larynx, so as to completely obliterate all spaces in which discharges might accumulate, after which the skin and subcutaneous tissue were united by silkworm gut sutures, entirely closing the wound, no drainage being employed. Careful asepsis was observed in dressing the wound. For three days after admission to hospital the patient was violently delirious (alcoholic), but was able to take liquid nourishment by the mouth from the first. At the end of seven days the wound was dressed for the first time, and the silkworm gut sutures were removed, primary union having taken place. Four days afterwards the patient was discharged.

Remarks by Dr. ARNISON.—The treatment in this case is quite opposed to the ordinary rules of surgery, but, given perfect asepsis, there is no reason why a wound in the throat should not heal as readily and completely as wounds in other parts. The difficulty in the case of wounds involving the air passage is that, however carefully the external wound may be treated, it becomes infected from the windpipe, with the resultant dangers of emphysema, cellulitis, &c. In this case I happened to enter the ward just as my house surgeon had finished suturing a somewhat jagged wound through the larynx, and I found he had closed it so carefully and effectually that I felt very confident that, with the same care in applying deep and superficial sutures to the external wound, and obliterating all dead spaces, it would heal throughout without drainage. My confidence was fortunately justified by the result.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

A Successful Case of Paracentesis Pericardii. — The Treatment of Empyema in Children, based on an Analysis of Eighty-six Cases.

AN ordinary meeting of this society was held on Jan. 23th, Sir WM. DALBY, President, being in the chair.

Dr. PERCY KIDD described a successful case of Paracentesis Pericardii, which is reported in full in another part of this issue.—Dr. SANSOM in discussing the case, dwelt upon the presence of lead poisoning and of contracted granular kidney, and said that two years ago he had stated that he had never seen a satisfactory recovery from pericarditis under those circumstances. Since that time, however, he had come across two cases of the kind, both of which presented traces of old retinal hæmorrhages, a sign which added greatly to the gravity of the prognosis. The present case, he thought, was partly a true pericarditis and partly a hydrops pericardii judging from the quantity of fluid withdrawn. In some other forms of pericarditis such a mode of interference would hardly be justifiable, and in many there would be great difficulties in the way, as in what Dr. Sturges called pancarditis, an inflammation of the whole heart, with swelling of its substance, followed by pronounced pericardial adhesions, where the presence of fluid was only a small part of the problem.—Mr. MARMADUKE SHEILD fully agreed that paracentesis pericardii should be restricted to very special cases, and dissented from Dr. West's statement that it was an easy and satisfactory operation. There was great difficulty in diagnosing with certainty pericardial effusion, and especially in distinguishing between that and enlarged heart with adherent pericardium, while an injury to the heart wall or a rim on its surface might easily occur. It was an important point first to make a small incision in the skin and then to pass the trocar obliquely. Anæsthesia was generally necessary, especially in young children.—Dr. CARR recalled a case seen post mortem. During life there had been great extension of the pericardial dulness, and the advisability of tapping was discussed and decided in the negative. The pericardium was greatly enlarged in all directions, containing pus and lymph, the pus being packed away, as is often the case, at the back of the pericardium. The heart itself was anchored by firm adhesions to the front of the pericardial sac, so that practically if any attempt had been made at paracentesis the needle must necessarily have gone into the ventricular wall wherever and however inserted.—Dr. EWART fully agreed with what Dr. Kidd had stated and with the conclusions he had quoted from Dr. West's paper. He had had several cases with very similar results. The most satisfactory was one in which twenty ounces of very bloody fluid were removed from the pericardium of a man aged about forty who was suffering from valvular disease with extreme dropsy and was in imminent peril. The relief was complete, though recovery was slow, the œdema lingering for a time; but the man was subsequently enabled to resume his occupation. The speaker had had the operation performed in cases of rheumatic pericarditis of severe degree, and with complications which made the safety of the patient depend on the immediate relief of intra-thoracic pressure. In one case, for instance, there was effusion into the three cavities of the chest, and all these were laid open, two of them at one *séance*, the patient recovering completely. He insisted strongly on the necessity of laying the pericardium freely open and cited cases illustrating the inefficiency of merely inserting a trocar.

Dr. CAUTLEY read a paper on the Treatment of Empyema in Children. Solis Cohen mentioned that absorption of pus from the pleural cavity was practically a myth, and said the late Dr. Sturges was of opinion that resection of rib was necessary and that the small mortality of empyema in children was due to improved treatment in this respect. Sutherland went even further and insisted on the necessity of washing out the cavity. Dr. Cautley had analysed a series of eighty-four cases with a mortality of 16·6 per cent. In respect of the cases in which no surgical treatment was adopted the fluid might of course be absorbed, but it might also rupture externally through the chest wall or internally through the lung. There was a considerable element of danger in leaving these cases to themselves, though in a certain proportion of such cases, either when left alone or treated by aspiration, absorption did take place. Of twelve cases treated by aspiration only one died, one ruptured externally, and one discharged through the lung. Of thirty-five treated by incision and drainage seven died, while of thirty-three treated by resection and drainage six died. A comparison of the two latter tables showed that the average age was practically the same, the mortality almost the same, and the duration of the after-treatment only differed in the matter of one or two weeks in favour of resection. It was a remarkable fact that five out of six cases under two years of age treated by resection died. An analysis of the fatal cases showed that in a large proportion death was not due to anything connected with the wound. The object of treatment was to remove the pus, to prevent reaccumulation, to procure complete re-expansion of the lung, and to leave behind no deformity. Although it was possible for small effusions to be absorbed, Dr. Cautley asserted most emphatically that in every case in which pus was present the only sound treatment was its evacuation. It might be conceded that aspiration was sometimes useful and might cure cases in which the pneumococcus was the primary cause. The disadvantage of aspiration was that thick effusions would not pass through the cannula, that it was impossible to remove all the contents of the cavity, thus leaving behind a focus of irritation, and, lastly, that pus rapidly reaccumulated afterwards. Moreover, there were certain dangers if the operation was performed too rapidly. On the other hand, it was useful in cases of urgency, in cases with thin sero-purulent fluid, and in cases of double empyema. The advantages claimed for resection were better drainage, facility for exploring the boundaries of the cavity, and for breaking down loose adhesions; also that there was less danger of hæmorrhage, that the chances of recovery were better, and that recovery was more rapid. Dr. Cautley pointed out that none of these advantages were proved by the experience of this series of cases, and that it was sometimes a distinct disadvantage to break down adhesions. The disadvantages of resection were that it was more severe, and, judging by the mortality, ought never to be employed in children under two years of age; and that there was greater liability to pyæmia and deformity of the chest. It ought, he thought, only to be had recourse to in cases in which the tube could not be inserted without and when drainage was imperfect, or for the cure of an old sinus. The tube should be short and only left in for a short time. Empyemata did not heal by granulation from the bottom, but by expansion of the lung, ascent of the diaphragm, and contraction of the chest wall. The tube should always be removed as soon as the discharge

became serous and scanty. If left in longer it became a source of irritation. Dr. Cautley stated that he had notes of a number of cases of double empyema, the treatment of which was practically the same, allowing a few days between the operations.—Mr. MORGAN said surgical proceedings would be attended very frequently by a more speedy and satisfactory result if brought to bear at an earlier date. Physicians had almost a superstition in favour of the aspirating trocar, and cases, he thought, were marred by the tentative measures its employment involved before a free opening was made. With regard to operation, Mr. Morgan greatly preferred resection to incision with drainage. Irrigation of the cavity, he thought, was a useful measure, as it detached a good deal of thick lining membrane.—Dr. MORISON concurred in the advisability of early evacuation of pus, and thought that aspiration was only of use in cases where, owing to some emergency, the more complete operation was temporarily impossible. He preferred chloroform as an anæsthetic and considered it safe, though serious results followed turning the patient on the side. The point of election was the sixth space, just in front of the posterior axillary line, and the method incision and drainage, most cases requiring the drainage-tube for little over a fortnight. He did not approve of irrigation, as he thought it was apt to set up irritation, which led later to restriction of chest movement. It was important during convalescence to adopt exercises for the expansion of the lung on the affected side. Resection, he thought, would prove to be only necessary in neglected cases.

CLINICAL SOCIETY OF LONDON.

Detachment of the Retina in Chronic Nephritis.—Chronic Self-inflicted Ulceration of the Throat.—Association of Respiratory Paralysis with Cardio-pulmonary Symptoms in Diphtheritic Paralysis.

AN ordinary meeting of this society was held on Jan. 25th, the President, Mr. J. W. HULKE, F.R.S., being in the chair.

Dr. SAMUEL WEST described two cases of Detachment of the Retina in the course of Granular Kidney. Case 1 was that of a woman aged twenty-two years who had suffered from headache, vomiting, and failure of sight for nine months, and who ten days before being seen in the hospital had become quite blind. She had had a severe attack of acute nephritis seven years previously, from which she had apparently never completely recovered. She presented the conditions of granular kidney and had marked albuminuric retinitis. Six days after admission she developed general purpura, which disappeared in a few days. Five days later detachment of the retina occurred (not hæmorrhagic). This rapidly extended till it involved the whole periphery except the upper segment. Three weeks after this a hæmorrhage occurred behind the orbit, which caused great pain but entirely resolved. She ultimately discharged herself from the hospital a month later in much the same general condition as on admission, but Dr. West did not think she could have lived long afterwards, though he was not able to ascertain what became of her. Case 2 was that of a man who said he had been in good health till two months before, when vomiting and headache attacked him. No history of previous illness could be obtained. It was only six days before admission that his eyesight began to fail, and in those few days he became blind. The case presented all the characteristic features of granular kidney, and albuminuric retinitis in a marked degree was present. Seventeen days later detachment of the left retina was discovered, but there were no symptoms to point to any great eye mischief. The patient rapidly lost strength, diarrhœa set in, which still more increased his asthenia, and he died a few days later. Attention was directed (1) to the existence of the disease, the occurrence of marked symptoms in granular kidney showing first that the disease had existed for some time, and that it was in an advanced stage, and secondly, that it had reached its termination; (2) to the suddenness of the onset of symptoms in granular kidney, which was most strikingly seen in failure of vision, so that a patient might become blind in but a few days after the first defects of vision had been noticed; (3) to the hæmorrhagic tendency, illustrated in one of these cases by purpura and retro-bulbar hæmorrhage; and (4) to the detachment of the retina, a very rare occurrence in granular kidney, these being the only cases observed by Dr. West in a long series of cases, in all of which careful ophthalmoscopic examinations were repeatedly made.—Dr. COUPLAND, while concurring generally in the views expressed, asked what was Dr. West's experience as to the prognostic significance of albuminuric retinitis. Personally, he regarded it as a symptom of the gravest import. He, too, observed this symptom as the first one to draw attention to the granular condition of the kidneys, and his experience was that life was not much prolonged after the date of its discovery, rarely extending beyond twelve months. He pointed out that there were cases in which dimness of the vision was not complained of though the retinal changes might be well marked. He asked whether the prognosis was equally bad in these cases. He, also, had observed instances in which patients presented themselves with what appeared to be a sudden acute attack of nephritis, whose history, however, pointed clearly enough to the renal trouble being of long standing.—Dr. HALE WHITE recalled the case of a man who came to the hospital with albuminuric retinitis not associated with loss of vision. He improved considerably under treatment and left the hospital. Some time later, when he returned on account of some other symptom of Bright's disease, nothing abnormal could be detected in the eyes. This was the only instance he had met with in which the eye lesion had cleared up. Another case, that of a child aged seven years, was interesting in that the eye appearances were indistinguishable from those of albuminuric retinitis, although the child presented no other indication of Bright's disease. In reference to the occurrence of hæmorrhages he remembered one case in which a man came to him on account of a hæmatoma of the ear. It occurred to him to examine the urine and he found it contained albumen, and three months later uræmia developed. He commented on the rapidity with which interstitial nephritis ran its course in persons at or under thirty years of age. So much was this the case as almost to constitute a separate clinical variety of the disease. The occurrence of tubal complications supervening on chronic interstitial disease was, he said, a frequent termination in chronic cases.—Dr. WEST, in reply, agreed that the prognosis in cases presenting the appearances of albuminuric retinitis was extremely grave. So far as he had been able to follow up these patients life had rarely been prolonged more than a few months. It was almost the rule in these cases that vision was not affected for a long time after the onset of retinitis. He had seen several cases of neuro-retinitis in children which could not be distinguished by the appearances alone from albuminuric retinitis. He had hoped to have heard more in respect of hæmorrhages in different parts of the body; for example, he had never heard of hæmoptysis in this association. He had seen several cases of hæmorrhage from the bladder, and in a case that had come under his notice that day in the post-mortem room there had been profuse hæmorrhage from the bowels without any lesion to account for the bleeding.

Dr. FELIX SEMON described a novel form of Malingering—Chronic Self-inflicted Ulceration of the Throat. The case was that of an unmarried woman aged thirty-six, who complained of chronic ulcerated throat, which had existed, practically without interruption, for four years. She had been treated by many previous advisers, but according to her statements had never been benefited. On examination the mucous membrane of the soft palate, the uvula, the arches of the palate, the tonsils, and the posterior wall of the pharynx were seen to be one mass of in part infiltration and in part ulceration; in other spots the mucous membrane was bright red, again in others it was denuded of epithelium, and still in others whitish shreds were seen, which in some patches were yellowish and even brownish in colour. The most remarkable thing was the abrupt termination of the affection above and below the region indicated. Neither in the naso-pharynx, nor in the œsophagus, nor in the larynx, could anything pathological be detected. On the occasion of her second visit, a fortnight later, having taken iodide of potassium in the meanwhile, the condition as a whole was pretty much the same, but the details had considerably altered, inasmuch as some of the ulcerations had healed and the membranous shreds had disappeared, whilst in others the affection seemed to have made progress. The fact, however, which had at once attracted the observer's attention — viz., that the affection abruptly terminated with almost parallel borders both above and below where the parts would cease to be accessible to the patient herself—was quite unchanged. Dr. Semon expressed to the patient's

mother his firm conviction that the whole affection was self-inflicted by means of nitrate of silver or nitric acid. The mother seemed not surprised, and, on the contrary, told him that years ago the patient had artificially blistered her breast and also at one time had blackened her face under the eyes in order to induce sympathy. She also stated that Mr. Hutchinson, who had been amongst the gentlemen consulted, had become convinced that the ulceration of the throat had been artificially produced. The patient herself denied having artificially produced the ulceration, but the denial was certainly not given with the surprise and indignation a person unjustly accused would show. She refused to go into a home for a week's time, where she would be under strict supervision, and the observer saw her no more. On inquiry, however, he learned from the mother that the throat remained much in the same condition, whilst the details of the affection varied from day to day, and that some time after the second consultation her throat and lips had suddenly become very white, the medical man consulted having assured her that it was not diphtheria, as feared, but had been caused by some application, probably nitrate of silver. The whiteness soon passed off. Dr. Semon had considered it right to put the case on record because, protean as the morbid power of invention of such patients is to discover new forms of suffering, he was not aware that the throat had even been chosen as the locality for self-inflicted injuries for that purpose.—Dr. GUTHRIE asked whether any anæsthesia of the pharynx was observed in this case. It had occurred to him that anæsthesia of the parts might account for the patience and persistence with which the mutilations were carried on.—Dr. W. WHITE referred to the case of a young woman who amused herself with applying nitrate of silver to a small crack in the lip, with the result of giving rise to the most intense colouration of the skin from absorption of the metal he had ever seen.—Dr. WILBERFORCE SMITH urged that in the treatment of these cases it was most important to show no sympathy with the lesions complained of, but to concentrate one's inquiries on the measures suggested for their relief, such as cold baths, exercise, &c.—Dr. HALE WHITE related the case of a woman who presented some ulceration of the interarytænoid space which so little resembled any known condition that it was surmised to be traumatic. It transpired, on questioning, that she had been advised to take steam inhalations, and it was evident that she had taken them at such a temperature as to determine the lesion in question. It healed rapidly enough when these were discontinued.—Mr. PEARCE GOULD said that many years ago a girl was brought to him who was said to be suffering from two tumours of the jaw. He found a swelling on either cheek, over which the cheek was, so to speak, "puffed out." The tumours were said to have been slowly growing, and the girl apparently had great difficulty in swallowing, along with a horribly fetid discharge from the mouth. She resisted the introduction of the finger into the mouth; but he succeeded in extracting two masses of some tape-like material, which she had been accumulating in the cavity in order to attract notice and sympathy. He pointed out that some persons were peculiarly liable to discolouration of the skin and argyrism, and he referred to a case recorded by Onodi, of Budapest, of a man who developed marked discoloration of the skin after a few applications of nitrate of silver to the nares.

Dr. PASTEUR read a paper on the association of Respiratory Paralysis with Cardio-pulmonary Symptoms in Diphtheritic Paralysis. The communication was based on an analysis of 32 cases treated at the North-Eastern Hospital for Children, Hackney. Of the 32 patients 26 were between two and six years of age. In 1 case there was no history of a previous attack of diphtheria; in 5 cases the history was somewhat vague; in the 26 remaining cases it was quite adequate. The cardio-pulmonary symptoms might supervene at any time between the first and the fifth or sixth week of the paralysis. Vomiting occurred in 13 cases, of which 9 were fatal. It was invariably associated with the onset of acute asphyxial symptoms (bulbar crises), and was of bad augury. The diaphragm became paralysed in 29 cases, of which 16 were fatal. In 4 cases which recovered there was associated paralysis of intercostal muscles and unusual physical signs were present simulating lung disease. In 14 cases the onset of diaphragmatic paralysis was associated with increased amplitude of the respiratory movements of the lower ribs. Diaphragmatic paralysis was found to occur under two different forms—(1) insidiously as part of the peripheral paralysis; or (2) acutely as part of a bulbar crisis. Of the 32 cases 19 died; in 17 of these there were bulbar crises. In 5 cases in which the diaphragm had been paralysed for two or more days there was an extreme degree of collapse of the lungs after death, especially of the right base, which in two cases sank entirely in water. In other cases in which the paralysis had been of very short duration, or non-existent, there was little or no pulmonary collapse. The extent and degree of collapse appeared to be directly proportionate to the duration and degree of the paralysis. In conclusion, the more salient points touched upon were summarised as follows: 1. The mortality in diphtheritic multiple paralysis is probably higher than current opinion would lead one to suppose. 2. Death takes place by asphyxia. 3. The fatal symptoms are, in the large majority of cases, of sudden onset, and suggest a bulbar origin. 4. Recovery from a bulbar crisis is exceptional. 5. Paralysis of the diaphragm is comparatively frequent, and may occur either acutely as part of the bulbar crisis, or may develop immediately as part of the peripheral paralysis. 6. The supervention of respiratory paralysis very seriously increases the gravity of the prognosis. 7. Whenever paralysis of the diaphragm, or other part of the chest wall, is long continued (two or more days) collapse of the adjacent lung is very liable to occur, and may give rise to definite physical signs. 8. The base of the right lung is more liable to be affected in this way than the left.—Dr. GUTHRIE said he was glad Dr. Pasteur had emphasised the fact that diphtheritic paralysis was not the mild, almost trivial, affection which it was formerly thought to be in this country. In France they had long been alive to the gravity of this complication. He hesitated to accept the assumption of the dependence of collapse of the lung on paralysis of the diaphragm or chest wall. Paralysis often occurred without collapse. He pointed out that the bronchioles were surrounded by a muscular layer as well marked as in the arterioles, and it was more likely that the collapse was due to paralysis of the dilator muscles. When one emptied an empyema, for example, the lung, theoretically, ought not to expand, but it did expand as the fluid was withdrawn, and this could hardly be otherwise than in virtue of the intrinsic muscular apparatus of the lung. He remarked that there were many pathological and clinical reasons for believing that diphtheritic paralysis was a central lesion—among others, the rapidity with which the symptoms came and went, and their occurrence in "crises." He asked if Dr. Pasteur had remarked the supervention of painful manifestations referred to the region of the epigastrium. Certain French writers had stated that this pain, associated with a rapid pulse, was of very unfavourable augury.—Dr. SIDNEY PHILLIPS declined to admit that diphtheritic paralysis was regarded as so trivial a matter in this country as the previous speaker appeared to think. The proportion of 39 cases of paralysis of the diaphragm out of 64 cases of diphtheritic paralysis was curiously large, and the proportion of recoveries after paralysis of the diaphragm was hardly less remarkable. He himself had never seen a patient with well-marked paralysis of the diaphragm recover. Diphtheritic paralysis might occur later than six weeks after the attack, and he knew of one case in which it came on nine weeks after, the patient dying suddenly. In another case a child was discharged from one hospital as cured of diphtheria, and four weeks later was admitted to the Paddington Hospital for Children presenting symptoms of complete general paralysis, from which it died. This made it probable that the death-rate from diphtheritic paralysis was in reality greater than was usually believed. This fact tended to vitiate the statistics of the antitoxin treatment, sufficient time not having been allowed to elapse to be certain that the recoveries were established. It occurred to him that many of these supposed instances of lung collapse were not really collapse at all. Trousseau long since pointed out that when there was spasm of the bronchi or bronchioles one could obtain the most wonderful physical signs by auscultation. He mentioned that he had seen one case of unilateral paralysis of the chest wall.—Dr. PASTEUR, in reply, said he did not suggest that paralysis of the chest wall or diaphragm was the only factor in the production of the collapse of the lung, but only as being one important factor. Many of his cases of collapse were verified as such in the post-mortem room, and he had been most careful to exclude cases as to which there was the slightest doubt. The paralyses sometimes occurred in crises suggesting a central lesion, while in others the distribution was suggestive of a peripheral lesion. Far from having noticed epigastric pain in these cases, he had always been struck by the curious absence of

painful manifestations. He had not included in his notes any cases of early death from cardiac failure, because these occurred at the end of the primary disease, while he had only taken cognisance of cases in which the paralytic symptoms supervened three weeks or so after.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

Epidemic Diseases in the Royal Navy.

A MEETING of this society was held on Jan. 18th, Mr. SHIRLEY MURPHY, President, being in the chair.

Fleet-Surgeon THEODORE PRESTON read a paper on Epidemic Diseases in the Royal Navy. It was impossible, he said, to study their history without regard to the great improvement in the diet and consequent increase of resisting power that had taken place during the last hundred years, beginning with the introduction of lime-juice and other reforms in 1795, the substitution of iron tanks for wooden water-casks, and more recently of distilled water fresh daily. Not less important was the general use of tea, coffee, or cocoa in place of rum. Before 1825 half a pint of raw spirits had been served out to everyone, it was then reduced to four ounces, and at present even that was issued freely diluted to those men only over twenty years of age who applied for it personally, and no sale or barter was allowed. Prior to 1795 the service was continually exhausted by scurvy, sloughing ulcer, typhus fever, and dysentery; it was impossible to keep a fleet at sea for many weeks together, and the mortality on long voyages was awful, as when Admiral Hozier, sailing to the West Indies with seven ships of the line, lost the whole of his crews twice over, and Lord Anson a few years later four-fifths of his from scurvy alone. Yet its nature and the virtues of lime-juice had been known since early in the seventeenth century, and the experimental use of two-thirds of an ounce of lemon-juice daily on H.M.S. *Suffolk* had shown that a crew could be kept at sea for 162 days without a single case of scurvy. The result of the earliest reforms was seen in the rapid disappearance of scurvy and sloughing ulcer, and the fall of the death-rate from all causes from 123 per 1000 in 1779 to 14 in 1813. Scurvy had, however, reappeared on several occasions, as in 1838, when there were twenty cases of so-called "night blindness" on board H.M.S. *Winchester* on her voyage to and from the Cape, and in the following year fifty-five cases of severe scurvy among the crew of H.M.S. *Alligator* during their laborious and unsuccessful efforts to establish a settlement at Port Essington in North Australia. Next, in 1854, the crews of the Baltic fleet suffered badly and two men died. The only cases since that time had been those of a few Kroomen in 1870–71 and the sledging parties of the Arctic Expedition in 1876, among whom 59 cases occurred with 4 deaths, through not being provided with fresh meat or lime juice. Passing by two alleged cases of plague, which were probably anthrax, the first authentic record of that disease in the navy was that of an outbreak in 1841 among the men landed at Kaiffa from the wreck of H.M.S. *Zebra* and the crew of the *Castor* sent to their assistance; of thirteen cases nine died, but the disease, which appeared to have been contracted in Acre, did not extend on board the *Castor*. Yellow fever had been familiar to navy surgeons for over 200 years, but he would begin with the remarkable outbreak at Ascension in 1839. It appeared at Sierra Leone after an absence of seven years, on board some merchant vessels, and spread to H.M.S. *Curlew*, which lost half her crew and two surgeons. She sailed thence to the Gambia, landed her sick, and set up an epidemic among the whites, the first and last known in the colony. Later in the year three ships, having contracted yellow fever at Sierra Leone, proceeded to Ascension, where they landed their sick with a semblance of isolation, but officers' effects and clothing were publicly sold. The fever, which had already attacked nearly the entire crew, broke out in the garrison, persisting for three months, when it ceased, and the inhabitants would never allow it again to approach their shores. He then described a succession of epidemics in the West Indies between 1863 and 1869, in 1873, and in 1882, which illustrated its intense infectiousness but varying mortality. At first hygienic precautions seemed useless; but latterly, and especially since the practical abolition of the bilge, its preventable character had been shown, and the number of cases and of deaths respectively in the navy had fallen in successive quinquennia from 1863 to 1892 as follows: 267 and 142, 178 and 77, 106 and 49, 54 and 21, 47 and 14, and 15 and 9. Much of the "dysentery" of past days might have been cholera; but the first clear account was that of an outbreak at Malta in 1837, when the disease, which, though prevalent in Italy and Sicily, had been kept out of the island by a rigid quarantine, was introduced aerially into a large poorhouse from the exposure of linen on board a Turkish man-of-war and other vessels moored in close proximity in the quarantine harbour. The inmates, 600 in number, were removed to barracks near the Grand Harbour, but no fewer than 400 out of the 600 died, while the garrison and civil population suffered heavily. Several ships of war calling at the island for a day or two and taking in water from the naval tanks were infected, and the navy had, in all, 219 cases with 38 deaths on that station. After describing the introduction of cholera into the allied armies and fleets in the Crimea and Baltic, and in particular the aerial infection of H.M.S. *Britannia* from the French troopship and the cholera camp on shore—facts familiar to all epidemiologists,—he passed on to the outbreak on the China station in 1862, remarking that in the expedition against Khadung the naval brigade had 141 cases with 80 deaths, while the troops accompanying them, but bringing their own water from Shanghai, escaped entirely. In 1865 Malta was invaded from Egypt, the only precautions taken being an absurdly antiquated quarantine; the native population suffered heavily, 63 per cent. of those attacked dying, but only three cases occurred in the naval forces, all having been contracted on shore and ending fatally. Single ships had from time to time been infected by intercourse with the shore in different parts of the world where the disease was prevalent. After repeating the classic story of Admiral Kempenfelt's fleet in 1782, and with considerable detail the history of the influenza epidemic of 1837 on the home and Mediterranean stations, he observed, with regret, that no statistics were available for the period between 1843 and 1854, when they were resumed with the Russian war. In that epidemic there were 5018 cases and 3 deaths in a strength of 14,000 in the Black Sea and Baltic fleets. Many limited outbreaks had occurred on board vessels in different climates, but that on H.M.S. *Surly* in 1863, whi'e cruising on the coasts of California and Mexico, was of special interest. When in the Gulf of Tehuantepec, 140 miles off the shore, a strong breeze set in from the land and lasted a considerable time, bringing with it a heavy perfume of flowers. Three days later cases of influenza began to appear in rapid succession, and on their arrival at La Union in San Salvador they found an epidemic of influenza raging, and recognised in the forests the perfume of the flowers. In 1750 one-fifth of the men enlisted died annually from small-pox, and in 1800 it broke out twenty times in the Channel fleet and compelled the return to port of one ship after another. In 1808 vaccination was officially "recommended," advice which was repeated in 1814 and 1825; but the first compulsory order was in 1864 requiring all new entries to be vaccinated, followed in 1871 by one for revaccination and another in 1873 enforcing the vaccination of "foreigners"—i.e., of Kroomen, Lascars, &c.,—with the result that there had been a steady fall from between 5 and 8 cases and 0·3 to 0·6 deaths per mille in the sixties to 0·09 to 0·36 cases and 0·0 to 0·06 deaths during the last twelve years. Most of the local outbreaks occurred on the China station, where there had been great difficulty in obtaining lymph, which the establishment by the Japanese Government of farms for the supply of calf lymph had since removed.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

The Connexion between Female Labour in Factories and the High Infant Mortality in certain Manufacturing Towns.

A MEETING of this society was held on Jan. 21st, Mr. S. R. LOVETT, President, being in the chair.

A discussion on this subject was opened by Dr. PORTER, medical officer of health, Stockport, who endeavoured to show that the excessive mortality was to be ascribed rather to the insanitary conditions amid which the children were reared than to the mere fact of the employment of the mothers, though he admitted that it necessitated artificial feeding with its train of ills—diarrhœa, rickets, &c.—and that premature births were more frequent among women

engaged in textile industries than in rural populations; but the influence of the grossly insanitary conditions of most of our manufacturing towns, especially as to the housing of the working classes and the disposal of excrement by the midden system, was a disgrace to the country; huge leaky pits often abutted on the walls of the houses, in which the liquid and solid excrement of a whole court, it might be, putrefied, and exhaled a sickening stench. It was no wonder that the medical officer of health of Crewe found the infant death-rate four times higher in the quarters where middens were in use, and he had found nearly the same at Stockport, where the infant death rate among the legitimate was 225 and among the illegitimate 594 per 1000. Indeed, the life assurance companies would not take illegitimate children under three years of age; but he did not believe that the practice of insuring the lives of children led to neglect. The payment of £2 was not worth the risk of courting inquiry, and agents of life assurance associations had assured him that the insurers belonged to the most respectable and steady of the working classes, and that the mortality was lower amongst these children than among others. In fact, the Bill directed against was withdrawn on the ground of insufficient evidence. If children were the victims of foul play it was rather by the reckless use of soothing syrups &c., under which name, or that of syrup of violets, Dr. Jones, in his Howard Essay, stated that 39 lb. of laudanum were sold every week in one town, and in another two druggists paid £5 each and costs rather than face the exposure of a trial. The law at present forbade the employment of women within four weeks after confinement, and a deputation to the Home Secretary had recommended an extension of the period to three months; but Mr. Asquith had shown from the Registrar-General's returns a greater increase in some manufacturing towns, as Wolverhampton, where women were not employed, and Dr. Reid's statistics did not take into account the simultaneous increase in the general death-rate in the same towns. Such prohibition of female labour was impracticable; some drunkards did live on the wife's earnings, but more often they kept together the home of the unwilling idler, and no law could prevent "charing." Again, the infant mortality was greater in the first month than in the second and third together, due partly to work during the later months of pregnancy, and a month's rest before delivery would be of great advantage. Inquiries among mill owners and overseers led him to the conviction that more stringent legislation would be impracticable, since the expected date rested on the woman's statement, and, though often warned, their confinement generally occurred within a few hours of leaving work, sometimes indeed in the mill. Even the four weeks rule was evaded, for if the overseer refused to readmit a woman she would get work where she was not known; and she frequently lost her post, as it was, unless she could find an equally efficient substitute. Crèches, or public day nurseries, had been recommended and tried, both at the mills and elsewhere, but without success, for the mothers preferred a neighbour whom they knew living near their own homes. Indian women, however, nursed their children in the mill. The only remedy he saw was the extension of the Infant Life Protection Act to all caretakers excepting near relatives, with annual licences and inspection, and notice to the coroner of all deaths, although it would provoke resistance at first.

Dr. REID defended his position. In his county of Stafford there were many towns with from 10,000 to 30,000 inhabitants, some wholly devoted to iron founding and others to pottery. The sanitary conditions were practically identical, but in the former no women and in the latter many were employed. In these the increase of the infant mortality in ten years had been 23 per cent., as against 18 per cent. for manufacturing towns generally. Mr. Asquith's figures were fallacious, for in the case of Wolverhampton, instead of comparing the decades 1871-80 and 1881-90, he had taken the years 1885 and 1893, which happened to give the lowest and the highest infant death-rates on record. True, the infant mortality had risen in the last ten years; but then two industries had sprung up, galvanising and japanning, the one largely and the other wholly conducted by women; while prior to 1880 the sole industry of the town was the ironworks, employing only men. He maintained that the increase in the general death-rate alleged by Dr. Porter was wholly due to the rise in the mortality among infants. He still advocated the three months' absence from work, which would carry the infant through the most critical period; whereas one month was of no advantage to the child, since it was not worth the mother's while to nurse an infant for so short a time, and the husband's wages were, as a rule, sufficient, though the additional twelve or fifteen shillings earned by the wife were a temptation.

Dr. TURNER could not agree with Dr. Porter, for the infant mortality from diarrhœa was not confined to the more insanitary towns. It was wholly a question of artificial *versus* "aseptic" breast feeding. The infant death rate was formerly the same at Leicester as at Portsmouth, but on the introduction of the shoe trade, owing to disputes at Northampton, it rose in one year 50 per cent., and a further rise followed the transfer in 1860 of the silk ribbon industry from Coventry, where it was superseded by the cycle and sewing machine manufacture. There the release of the women led to a corresponding fall in the infant deaths, except in 1870, when the Franco-German war caused a transitory revival of the silk industry. Infant diarrhœa was almost unknown in Old London, insanitary as it was, just because feeding bottles had not been invented. At Much Hadham, a large village where the children were invariably breast-fed, the opening up of an ill-constructed system of communicating cesspits and sewers was followed by an outbreak of diarrhœa which spared the infants even when their mothers were attacked.

Dr. SPOTTISWOODE CAMERON, Dr. REGINALD DUDFIELD, and others having spoken, Dr. PORTER replied. He did not deny the importance of female labour as a cause, but maintained that it was one of many, and he deprecated exaggeration and the advocacy of measures which, however desirable in themselves, would be found impracticable.

ÆSCULAPIAN SOCIETY OF LONDON.

Exhibition of Cases.—Strangulated Hernia.—Diphtheria.

A MEETING of this society was held on Friday, Jan. 25th.

Dr. A. T. DAVIES exhibited a young woman the subject of extensive superficial Lupus of the Face and Neck who had been under treatment for seven months with thyroid extract. Steady and marked improvement resulted, the patches fading and becoming more flattened. There was no history of syphilis or tubercle. Dr. Davies regarded the effect of the thyroid treatment as suggesting a possible relationship between myxœdema and tubercle.—Mr. F. C. WALLIS mentioned two cases of severe lupus invading the nose and adjacent parts in which great benefit resulted from a combination of skin grafting with the thyroid treatment. He also showed a broad and sharp edged knife devised by him for shaving off large portions of skin for grafts.—Mr. STEPHEN PAGET showed a case of Acromegaly. Reference was made to a similar case observed in the dissecting-rooms at Edinburgh University seventeen years ago, in which the pituitary body was then noticed to be much enlarged.

Mr. PAGET read a paper giving details of twelve cases of Strangulated Hernia in which the bowel was found on operation to be gangrenous. Only one of the twelve recovered. Almost every case was practically hopeless when admitted to hospital. The reluctance of patients to undergo operation, the want of due insistance by practitioners, the deceptive character of such attacks, and partially successful reduction had each their share of responsibility for the fatal delay in operating. As regards the operation, resection was in several cases impossible on account of the extent and position (the large intestine) of the gangrene. Extreme gentleness and care in examination of the hernial mass might have done something—possibly not much—to alter the result, but the whole series of cases formed a protest against the danger of delay.

Dr. B. G. MORISON read notes of three well-marked cases of Diphtheria, two of them severe and relapsing, treated successfully with antitoxin diphtheriæ. The false membrane cleared rapidly and no sequelæ had been observed. In one case laryngeal symptoms were present and disappeared after the injection.

MIDLAND MEDICAL SOCIETY.

Exhibition of Cases.—Post partum Hæmorrhage.

THE fifth ordinary meeting of this society was held on Wednesday, Jan. 6th, Mr. T. F. CHAVASSE, President, being in the chair.

Dr. LESLIE PHILLIPS showed a curious case of Pityriasis

Rosea.—Dr. PURSLOW showed a Fœtus from a case in which Decapitation had been necessary to complete delivery.

Dr. MALINS opened a discussion on the treatment of Post-partum Hæmorrhage. He alluded to the importance of the subject to the majority of the society who were engaged in the practice of midwifery, and pointed out the value of trustworthy and accurate knowledge in times of emergency. The natural manner in which hæmorrhage was arrested after delivery was pointed out. Considerable stress was laid upon the prophylactic treatment and the treatment of those called "flooders." The order in which the treatment was enjoined after delivery of the placenta was: (1) manual stimulation, external and internal—bimanual compression also of the uterus in a position of anteflexion was noticed; (2) the application of cold and heat; (3) the use of ergot by mouth and hypodermically; (4) the application of astringents, such as iron, by injection, swabbing and tampon, and the use of vinegar; (5) Dührssen's method of plugging the uterus; and (6) transfusion. The details of the above methods were considered, and the relative importance and advantage of each pointed out from the speaker's experience.—Mr. ALFRED FREER said that the hæmorrhage in some cases began before delivery was complete. The most dangerous cases were those in which the hæmorrhage took place between the birth of the child and the expulsion of the fœtus, and in such cases separation and removal of the placenta were of the utmost importance. Women who indulged in beer excessively were often "flooders," and a purgative course of treatment before labour seemed an admirable prophylactic. Vinegar and water had in his hands been of great service in some cases, and he preferred it to iron, which if used should be in very dilute solution. Neutral iron alum was to be preferred to the perchloride.—Mr. A. H. EVANS said that post-partum hæmorrhage was very rare in well-conducted labours. The worst cases were those in which, in the absence of a medical man, there had been only an imperfect delivery of the placenta. The passage of the hand into the uterus and a thorough cleaning away of all coagula were very important items in the treatment. He called attention to distension of the urinary bladder as an occasional cause of difficulty in contraction of the uterus, and alluded to the importance of a quick pulse after delivery as a warning of impending hæmorrhage.—Dr. PURSLOW found that the most troublesome cases of post-partum hæmorrhage occurred in primiparæ after the application of forceps under chloroform for protracted labour. He insisted upon the importance of never losing the manual control of the uterus after delivery, and always gave a dose of ergot after delivery.—Mr. DONOVAN said that the treatment of post-partum hæmorrhage really began before delivery. The child should always be made to advance by forceps if the uterus when contracting forcibly was not capable of advancing it. Exhaustion and uterine inertia were thus avoided. When the head was delivered the advance of the body might be retarded and the uterus thus given time to contract. Ergot should be given as a routine treatment after the birth of the child.—Dr. E. UNDERHILL laid stress on the importance of anticipating if possible the occurrence of hæmorrhage by a careful inquiry into the history of previous confinements. The uterus should be grasped with the hand immediately the child is born. He urged the importance of supporting the strength of the patient and the administration of easily assimilated food in cases of weakness.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

Spina Bifida.—Ovarian Tumours.—Glandular Proligerous Cyst of Right Ovary.—Uteri removed by Vaginal Hysterectomy.—Clinical Report of the Rotunda Lying-in Hospital.

A MEETING of this section was held on Dec. 21st, 1894, Dr. PUREFOY, President, being in the chair.

Dr. W. J. THOMPSON exhibited a patient with a Spina Bifida who had the following history. The patient was three months old and had a spina bifida at birth as large as an orange, flaccid, translucent, and covered with a thin bluish membrane. There was complete paralysis of the lower extremities, but not of the rectum or bladder. The laminæ were wanting, and the bony ring around could be distinctly traced. The legs were everted from the hip-joint, and the left foot was a well-marked specimen of talipes calcaneus. The case was either a meningo-myelocele or a syringo-myelocele—probably the former. For about one month there was no change in condition, and at the end of that time the tumour got smaller and more tense, and the skin healthier; the legs also regained power, and eversion became less marked. Two weeks after the improvement in the legs was noted hydrocephalus commenced and had gradually increased, the circumference of the head measuring now twenty inches. The bones were widely separated, the fontanelles greatly enlarged, and the sutures could be easily traced. There was distinct fluctuation, and the veins were enormously enlarged. From the statistics of the Clinical Society of London it would appear that spina bifida occurs once in 1000 births, and it was associated with hydrocephalus once in 10,000 births. The family history was good, but the first child had an enormous nævus. The treatment had consisted of firm pressure with simple antiseptic dressing. Dr. Alfred Smith thought that it could only live a week or two.—Mr. Croly, Dr. Macan, and Dr. Purefoy made observations on the case. Dr. Thompson replied.

Dr. ALFRED SMITH showed two specimens of Ovarian Tumour—(1) a large Papillomatous Cyst, removed from a patient aged fifty-two, recovery good; and (2) a small Ovarian Tumour removed from a patient aged thirty-two. The patient had been ailing for the past twelve months, and complained of great pelvic pain and of severe pain down the right leg, which caused the patient to walk very lamely. There were many attacks of hysterical convulsions, the seizures occurring chiefly when the patient was alone. On examination under ether a tumour the size of the fœtal head was found jammed in the pelvis; it could not be released, being hitched under the promontory of the sacrum. After an easy operation recovery was uneventful, and the patient walked without showing any evidence of lameness. There had not been any recurrence of the convulsions. The operation was performed on Nov. 28th. Dr. Macan, Dr. Smyly, and Dr. Purefoy made remarks on the case, and Dr. Smith replied.

Dr. J. H. GLENN exhibited a Glandular Proligerous Cyst of the Right Ovary.

Dr. F. W. KIDD exhibited two Uteri removed by Vaginal Hysterectomy and gave an account of the operations.

The following Clinical Report by W. J. SMYLY, M.D., Master; J. H. GLENN, M.B., and H. TWEEDY, L.R.C.S.I., Assistants, of the Rotunda Lying-in Hospital for the year 1892–93 was submitted to the meeting:—During the year ending Nov. 1st, 1893, 1288 patients were confined in the hospital and 2105 at their own homes; total, 3393 cases relieved. In my former report of the Lying-in Hospital I stated that the morbidity of the patients delivered in the wards was a safer test of the precautions taken to guard them from septic infection than the actual mortality, and the present report confirms that opinion. By morbidity is meant the number of cases in which the temperature even once exceeds 101·4° F. The details of the fatal cases are even more convincing, three out of the five having been admitted in an advanced stage of the disease; a fourth was infected from an abscess in the pubic symphysis, the genital canal remaining healthy; and the fifth was the result of a surgical operation (symphysiotomy). Forty-one women aborted, eighteen of whom required no assistance. In three the uterus was emptied by the finger alone, and in nineteen the uterus was curetted after the removal of the ovum. One patient only was plugged. There were three cases of transverse or oblique presentation. All the mothers did well. There were eight cases of placenta prævia with one death, the result of pulmonary embolism. In three cases the children were born dead. Two cases were left to the natural forces of labour. Forceps were applied in one instance, and in the remaining five cases turning and bringing down a leg through the cervix, then leaving the woman to be delivered by the natural process. As regarded accidental hæmorrhage, there were twelve cases with two maternal and six fœtal deaths. In three cases no special treatment was required; in three version alone was adopted, while the remaining six cases were plugged and bound with a tight binder. Version was performed subsequently in three of these cases as further treatment. The vaginal plug, when efficiently applied before the rupture of the membrane, stopped the hæmorrhage in every instance, and had the further advantage of inducing labour pains and causing the rapid dilatation of the os. There were twenty-four cases of post-partum hæmorrhage. Six were traumatic (due to lacerations of the cervix), in three the rents were closed by suture, and in three plugged with

iodoform gauze. The others were atonic—viz., in six the placenta or membranes had to be removed manually; two were plugged with iodoform gauze; and all were douched with hot water. The perchloride of iron was not used in any case. One patient with a submucous myoma died. There were ten cases of contracted pelvis; eight were flattened pelves and two generally contracted flattened pelves. The measurements were taken with Skutsch's pelvimeter or Dr. Bullit's modification of the same. Four of these were delivered by forceps, one by perforation, two by induction of premature labour, and three by symphysiotomy. Version was performed eleven times (November, 1892, to November, 1893). In two instances external version was accomplished. In one of them a transverse presentation was changed into a vertex. In the other a head was converted into a breech as part of the treatment in ante-partum hæmorrhage. Symphysiotomy was performed three times, and, though one patient died, I hold it to be a good method of delivery in suitable cases. There were nine cases of eclampsia during the year. The mortality was in mothers two, in infants five. The urine in every case was found highly albuminous.—Dr. MACAN congratulated Dr. Smyly on the result of the report. There were very few cases of septicæmia, and most of them were brought from the outside. He considered that symphysiotomy was a very difficult operation, requiring three assistants and very skilled after-treatment. He thought that the consensus of opinion at the meeting at Rome was that it was unsuited for ordinary practice.—Dr. ATTHILL said that the question of plugging or not for accidental hæmorrhage was a very old one. It used to be laid down that it was absolutely wrong to plug in accidental hæmorrhage, but he had discovered that many cases of supposed placenta prævia which were plugged did very well, but turned out not to be cases of placenta prævia.—Dr. ALFRED SMITH entirely agreed with Dr. Smyly in thinking that morbidity is the real test of antiseptics employed. The removal of adherent placentæ was considered one of the most dangerous operations in midwifery, but in the report he found that nineteen had been removed and that there was no record of death.—Dr. GLENN compared the statistics of morbidity within the last four years, and showed how greatly it had fallen off—first year, 185; second year, 117; third year, 94; fourth year, 60.—Dr. PARSONS said that the more he thought of the treatment of eclampsia by chloroform the less he liked it. That the convulsions could be stopped by it was perfectly certain, but he did not know whether it was a good thing to stop the convulsions.—Dr. CROLY thought that in convulsions nothing was so good as cold effusions to the head continued for a considerable time. They had the advantage of not depressing the patient.—Dr. PUREFOY looked rather unfavourably upon plugging in accidental hæmorrhage. He had seen no bad results follow the use of perchloride of iron.—Dr. SMYLY, replying, said that unfortunately a death had occurred from post-partum hæmorrhage, which commenced two or three hours after delivery in consequence of a submucous myoma. The uterus was left well contracted, but violent hæmorrhage came on again. He now came to the chief point in the report—namely, the treatment of deformed pelvis. Symphysiotomy was only a very small part of the treatment. If the head did not mould the forceps must be tried, or failing them, there was the choice between symphysiotomy and perforation. He shrunk from perforation on moral grounds. He admitted Dr. Macan's objection to symphysiotomy. The number of assistants required prevented its being used in general practice.

ERRATUM.—In our report last week of the meeting of the Leeds and West Riding Medico-Chirurgical Society, the remarks made by Mr. Cant should have ended with the sentence "and referred to Mr. Greig Smith's recent paper on the weakness of some of these adhesions." The remarks after this were made by Mr. Ward.

THE SUNDAY LECTURE SOCIETY.—The third series of lectures given by this society, of which Professor Huxley is the president, will begin on Sunday afternoon next, at 4 P.M., in St. George's Hall, Langham-place. The first lecture will be given by Mr. A. S. Woodward, the subject being the Restoration of Extinct Animals.

Reviews and Notices of Books.

A Treatise on Hygiene and Public Health. Edited by THOMAS STEVENSON, M.D., F.R.C.P., and SHIRLEY F. MURPHY, M.R.C.S. Vol. III.: Sanitary Law. London: J. & A. Churchill. 1894.

THE student of the first two volumes of this valuable work will, we think, after reading the third volume, agree that it forms a fitting completion to the treatise; and it will, too, be readily conceded that the anonymity of the articles is a fact of small importance when compared with their intrinsic excellence and the assurance of the editors that the writer in each case "is officially engaged in the administration of the law of that part of the United Kingdom to which his article relates." Volume III. does not lend itself to review in the same manner as did the two preceding volumes, and when we have said that the book is an able disentanglement and collation of the law as it relates to the several matters concerning, or likely to concern, the medical officer of health, we have in large part given the book its due.

The law appertaining to public health in England and Wales, in London, in Ireland, and in Scotland, is treated of separately in this volume, and in each case the most recent legislation is embraced. The reader will find, for instance, that in England the sanitary areas are spoken of in the terms of the Local Government Act, 1894. In a brief introductory review of the Public Health Acts in England and Wales the author of that part of the volume refers to the manner in which their value would be greatly enhanced were they so consolidated and amended as to be readily understood by the general public in whose interest they were framed, and he also draws attention to the difficulty which a lay reader must necessarily find in mastering the details of the several Acts, many of which are modified and partly repealed by later enactments.

No one who has endeavoured to unravel the intricacies of the laws relating to public health in England and Wales would be likely to do otherwise than heartily endorse these sentiments. The general arrangement of the book is such as cannot fail to commend itself to medical officers of health and students of sanitary law, as, the matter being dealt with under subject headings, it is possible to obtain by a minimum amount of reading a comprehensive knowledge of the law in regard to any subject upon which information is desired. In making this statement, however, we do not wish to imply that a thorough knowledge of the law can be obtained except by a study of the Public Health Acts themselves, but rather that a grasp of their main provisions sufficient for the medical officer of health in the performance of his daily duties will be procured.

The sanitary provisions of the Local Government Acts, 1888 and 1894, are well set forth, and considerable space is devoted to such subjects as the Burial Acts, the Housing of the Working Classes Acts, the Canal Boats Acts, Factories and Workshops, Slaughter-houses, Baths and Washhouses, the Duties of Sanitary Authorities and their Officers, and Port Sanitary Authorities. The Acts referring to vaccination are fully dealt with, the duties of parents, the public, the guardians, the public vaccinator and vaccination officer in regard to them being ably analysed.

Under Part IX. of the volume before us the law concerning public health in London is discussed, and, although the author professes to provide only a general outline of the very complicated system of sanitary administration at present appertaining to the metropolis, he has certainly succeeded in conveying to the reader a capital idea of the public health functions of the several bodies having jurisdiction in London, and more especially is this the case in connexion with the powers of the London County Council. In those portions of the volume relating to Ireland

and Scotland a very clear conception is given in each case of the several sanitary areas and their governing bodies, which will be most acceptable to those unfamiliar with public health administration outside the limits of England and Wales; and although the Public Health Acts in force in Ireland and Scotland are not dealt with in such detail as those in force in England and Wales, they are so compared and contrasted with the English Acts as to enable the reader to obtain a good grasp of the main provisions in each case.

In the matter of Scotland the reader will bear in mind that the Local Government Bill, 1894, has become law since the book was written. In conclusion, we have no hesitation in saying that Volume III. of this treatise on Hygiene and Public Health supplies a long felt want among medical officers of health.

Enlargement of the Prostate: its Treatment and Radical Cure. By C. W. MANSELL MOULLIN, M.A., M.D. Oxon, F.R.C.S. London: H. K. Lewis. 1894. Pp. 176.

IN 1892 Mr. Mansell Moullin took as his subject for the Hunterian Lectures at the Royal College of Surgeons the Operative Treatment of Enlargement of the Prostate, and in the present volume he has discussed fully the causes, effects, and treatment of the same condition. In the earlier chapters the author treats of the normal structure and function of the prostate, and then proceeds to consider the etiology of enlargement of the gland; and after citing the views of various authorities he concludes that in the present state of our knowledge no satisfactory cause can be assigned to it. Mr. Moullin believes that the enlargement commences as a rule at a much earlier age and occurs much more frequently than is usually imagined, but that in a very small number only is the enlargement of such a form as to interfere with the due emptying of the bladder. The severe consequences which may follow from the obstruction offered to the outflow of urine by an enlarged prostate have long been recognised, yet it is only comparatively recently that any treatment more drastic than the systematic use of the catheter has been recommended. In 1856, indeed, Mercier in Paris devised and employed an instrument for removing portions of an enlarged prostate per urethram, yet the method met with but scanty recognition. Even the most earnest advocates of the habitual employment of a catheter for difficulty in micturition due to enlargement of the prostate must acknowledge that dangers attend its use. It is no easy matter for a surgeon even to be able to guarantee the perfect asepsis of the contents of the bladder in a case where a catheter has frequently to be introduced, however careful he may be of the asepsis of his instruments, and the dangers are increased manifold when the subject of an enlarged prostate is himself entrusted with the use of the catheter. Many cases do well in spite of the risk, but in a large majority the secondary affections of the kidneys sooner or later lead to a fatal issue; so that there is no need for surprise that efforts have been made to permanently cure the condition rather than have recourse to a method such as catheterism, which is merely palliative in itself, and so often productive of serious results. The earlier methods, such as those of Mercier already mentioned, never met with much success, though attempts have been made at intervals to reintroduce what are practically mere modifications of his method. Drainage through the perineum, with or without partial prostatectomy, does not now receive the support accorded to it a few years ago, though it is capable in many cases of almost completely relieving the obstruction to the outflow of urine. The supra-pubic operation, which is of most recent introduction, offers advantages which are not to be found in any of the other methods, and the results hitherto obtained, if confirmed by future experience, will suffice to place this procedure in the front rank of operative methods for the treatment of enlargement of the prostate.

Mr. Moullin has given an excellent account of the various methods of operation, and has quoted the opinions of others in support of his views. He is inclined to favour, on the whole, for slight cases of enlargement with but a small amount of residual urine, the use of the catheter; but he forcibly insists on the importance of not trusting to the catheter when there is any difficulty in its introduction, when the bladder wall is beginning to lose its muscular power, when the quantity of residual urine continues to increase, or when there is evidence that the kidneys are becoming affected. In such cases he is inclined to recommend the supra-pubic operation, sometimes associated with a perineal incision, unless the condition of the patient is so grave that nothing more severe than drainage can be attempted. Mr. Moullin attaches great importance to the view that the prostate is purely sexual in function, and he speaks not unfavourably of castration as a treatment of the enlarged gland, as the atrophy which follows this operation seems to be both rapid and complete, and he suggests that it should be performed in the worst cases when everything else has failed. At the present time the number of cases in which castration has been done for this purpose, though they were apparently very successful, is not sufficiently large to enable a decided opinion to be formed as to its ultimate value. Mr. Mansell Moullin's work may be taken as a readable exposition of the present state of surgical knowledge with respect to enlargement of the prostate.

The Practice of Medicine. By M. CHARTERIS, M.D. Edin. Seventh Edition. London: J. & A. Churchill. 1894.

THAT this compendious manual is much in favour with the student is evidenced by the rapidity with which one edition succeeds another, nor is the cause of this popularity far to seek. Covering the whole range of medicine the author has succeeded in giving terse and accurate descriptions of every disease, and has not failed to indicate clearly the main lines of treatment. Naturally his little book has grown in size since its first appearance, but in spite of this it still remains as a good example of the *multum in parvo*. Of the quality of the book we have often spoken, for we consider that it admirably fulfils its purpose, which we take to be that of an introduction to the more extended study of the subject. A student has, under prevailing regulations of the curriculum, at least three years to devote to systematic study of medicine, and therefore he would be well advised to commence his course of reading with a small trustworthy manual like this of Dr. Charteris before proceeding to assimilate the substance of more ambitious text-books. Such manuals as this should then supplement rather than replace the larger treatises. The present edition contains a notice of pathogenic micro-organisms, a proof of the fundamental importance of bacteriology to medicine. The notice, however, is limited to five pages, and although illustrated by a coloured plate can hardly be said to more than touch the fringe of the subject. It seems to us to be somewhat premature in an elementary work of this class to allude to a subject at present so undetermined as that of the existence of sporozoa in cancer.

Method of Operating for Cataract and Secondary Impairments of Vision, with the Results of Five Hundred Cases. By Surgeon-Captain G. H. FINK, Her Majesty's Indian Medical Service. pp. 77. With Illustrations. London: J. & A. Churchill. 1894.

THE author of this little book has had large experience in performing the operation for the extraction of cataract in India—larger, indeed, than falls to the lot of metropolitan

surgeons even in considerable practice. He describes his method of operation, one of the points in which—the cutting short of the eyelashes—is not commonly resorted to in this country; and he uses both the solution of mercury bichloride containing one part in 5000 and the solution of cocaine, a proceeding that is sometimes thought to be rather dangerous, since it easily leads to detachment of the corneal epithelium; and he employs a special form of speculum in which the resistance of the orbicularis is opposed and overcome by easily applied weights. He tries to remove the lens without pricking or lacerating the capsule. The technique of the operation does not otherwise differ from that in common use, and he employs an antiseptic plastic as a dressing. He adds: "If complications arise they must be treated promptly *secundum artem*," which is good advice, but requires some details to make it useful in practice. The author gives a tabular statement of 500 cases of linear extraction with iridectomy, with results that are astonishing, the numbers being—successes, 453 = 90·6 per cent; accidents and complications, 33 = 6·6 per cent.; and loss by suppuration, 14 = 2·8 per cent. The only question here is what is meant by "cured" and "success." It would have been more satisfactory if the author had given the visual acuteness, after correction with glasses, a month or two after the operation. We notice one case of success in which the vision is stated to have been indistinct, implying that all the rest of the "cured" had good vision. The natives of India seem to be singularly free from most of the secondary complications of cataract extraction.

A Manual of Veterinary Therapeutics and Pharmacology. By E. WALLIS HOARE, F.R.C.V.S. London: Baillière, Tindall, and Cox.

THIS work appears to be a very important addition to veterinary literature, for although books on the subject are by no means rare, yet none, perhaps, present such claims to attention for the novel features it presents or the wide extent of ground it covers. It professes to deal in a concise manner with the subjects of diagnosis and the general symptoms of disease in relation to therapeutics, as well as noticing in a general manner the action and uses of medicinal agents; it also treats of general therapeutics, and in doing so the plan adopted by Dr. Mitchell Bruce in his well-known work on "Materia Medica and Therapeutics"—that of discussing the actions and uses of remedies under the physiological systems of the body—is followed; while an interesting section deals with special therapeutics, the action of drugs being also arranged on Dr. Bruce's plan of discussing their action from their first contact with the tissues to their effects on the various organs and tissues until they become eliminated. Mr. Hoare has performed his work well and, so far as it could be done, thoroughly. The book may be accepted by those who are concerned in treating the diseases of domestic animals as a reliable guide and quite up to date in everything it deals with. Perhaps to many medical men the most attractive portion will be the special chapter on "Anæsthetics" and the Production of Anæsthesia in Animals. The more scientific and skilful veterinary surgeons of the present day resort much more frequently than their predecessors did to the beneficent and merciful employment of anæsthetics, and strongly recommend their use, especially in the more serious operations they have to perform. Mr. Hoare is known to be one of these advocates for anæsthesia, and having had considerable experience in its production in several species of the domestic animals, he may be considered as an authority competent to give a satisfactory opinion. His remarks will be read with interest by those who are anxious to solve some of the serious problems regarding the safe administration of anæsthetics to our own species, and they will probably lead many to devote renewed attention to the question whether the results of experiments on animals can always be safely applied to mankind. The horse, for instance, it appears, will inhale pure chloro form with impunity, without any admixture of air, until complete anæsthesia has been induced. Hundreds of horses have been so treated without an accident being recorded. The rapidity with which narcotism is produced with only a small expenditure of the drug is the chief advantage found in giving it by means of a bag or a muzzle fitting closely over the lower part of the face. But Mr. Hoare does not approve of this method, and administers it largely mixed with air. The difference between the horse and dog with regard to their toleration for anæsthetics is very remarkable. Veterinary students and practitioners will, we feel sure, welcome this book and find it of much use in their studies and daily avocations.

The Middlesex Hospital Reports. (Reports of the Medical and Surgical Registrars and Pathologists for the Year 1892.) London: H. K. Lewis. 1894.

THE medical report, by Dr. Frank J. Wethered, is arranged, we learn, on a different plan to that of its predecessor. The general table of diseases has been arranged in accordance with the classification recommended in the "Nomenclature of Diseases" of the Royal College of Physicians of London, the table of results is also amplified. Of the total cases under treatment (1509) in the medical wards there was a mortality of 8·79. It is interesting to note that of twenty-six patients under treatment for diphtheria, sixteen died; tracheotomy was performed in fifteen cases. A short statistical report is followed by an abstract of important groups, a list of some cases of interest, and abstracts of exceptional cases, such as beri-beri, empyema, infective endocarditis, &c. The surgical report, by Mr. Leopold Hudson, is arranged as in previous years, the same nomenclature of diseases being employed. The mortality for the year was 10·8 per cent., but exclusive of death from malignant disease 4·4 per cent. There are included in the report a series of brief statistical tables, abstracts of cases of hernia, of perityphilitis, of sixteen cases in which the peritoneal cavity was opened for various purposes, and of twenty-three cases of compound fracture. An appendix comprises a report, in accordance with the resolution of the medical committee, of all cases of laparotomy with removal of uterine appendages: (*a*) cases in the gynæcological ward—eleven cases with two deaths; and (*b*) cases in the surgical wards—sixteen with six deaths. The pathological report, by Dr. A. F. Voelcker, has short records of 296 post-mortem examinations, and is preceded by a summary of diseases. This report occupies more than 150 pages, and could easily be condensed, or its form changed, so that it should not take up more than a third the amount of space which is now permitted. It contains valuable material for study and has evidently been carefully compiled.

Guy's Hospital Reports. Edited by Dr. HALE WHITE and Mr. W. H. A. JACOBSON. Vol. I., being Vol. XXXV. of the Third Series. London: J. & A. Churchill.

THE first impression which we obtain from this volume is one of disappointment; for it is not, in a proper sense, a report of the hospital. We want to know the result of the treatment of the patients, in order that we may learn something of the working of this large institution; but there is nothing on the subject. The first part of the work consists of papers by past and present members of the staff and others, most of them excellent and of permanent interest. Dr. S. Wilks contributes The first case of Popliteal Aneurysm treated by Pressure, the account of which is taken from the

notes which he made when dresser to Mr. Aston Key, on Nov. 25th, 1846; Dr. G. H. Savage, Suicide as a Symptom of Mental Disorder; Mr. C. Higgens, Three Cases of Distension of the Frontal Sinus; Mr. Jacobson, Five Cases of Digital Chancres occurring in Medical Men, with Remarks; Dr. E. W. Goodall, Note on the Hæmorrhagic Form of Diphtheria and Scarlet Fever; Mr. A. H. Tubby, the Prognosis of Abscess in Pott's Disease; Dr. James F. Goodhart, Clinical Observations upon Heart Disease; Dr. Thomas Stevenson, Cases illustrating (*a*) Poisoning by Terchloride of Gold, and (*b*) Breslau's Second Life Test in Infanticide; Dr. Hale White, the Effect of giving Lævulose and Inulin to Patients suffering from Diabetes Mellitus; Mr. J. H. Targett, Hydatids in Bone; Mr. F. Gowland Hopkins, Five Cases of Pernicious Anæmia, with Determination of the Iron in the Viscera, and some Observations on the Urine; Dr. J. H. Bryant, One Hundred Cases of Hyperpyrexia. The volume terminates as regards contributions to medicine with a list of specimens added to the pathological museum of the hospital during 1893. The illustrations are not numerous, but they are well executed; the paper by Dr. J. H. Bryant, however, is fully illustrated, there being no less than 100 temperature charts. This paper is certainly deserving of special mention, both for the amount of industry shown in its compilation and its usefulness for future reference. Another paper to which these remarks equally apply is the one on Disease of the Duodenum, which contains notes on 334 cases. Additional interest attaches to this issue of the Reports as it contains a general index to the volumes from one to fifty, including the years 1836 to 1893.

Analytical Records
FROM
THE LANCET LABORATORY.

1. SOMATOSE. 2. EUROPHEN.

(FRIED. BAYER AND CO., ELBERFELD; BRYCE AND RUMPFF, 15, FISH-STREET-HILL, LONDON, E.C.)

THE name "somatose," according to our examination of the substance to which it is applied, may be regarded as a substitute for albumose, and is derived, we suppose, from the Greek word *soma*, signifying the body. The preparation consists substantially of about equal quantities of deutero- and hetero-albumose, with mere traces only of peptone. It yields a nearly clear and almost tasteless solution, which responds to all the known tests which distinguish albumose from true peptone. A saturated solution of ammonium sulphate throws down practically the whole of the proteids from the aqueous solution. Analysis gave the following results: moisture, 11·50 per cent.; solid matter, 88·50 per cent.; albumose, calculated on 12·30 per cent. nitrogen, 77·49 per cent.; mineral matters, 5·00 per cent. It may be remarked that, although the amount of mineral matter is high, yet it contains a disappointing proportion of soluble phosphate—less than half per cent. of the whole substance—the bulk of it consisting of alkaline carbonates. Nevertheless, we think somatose is a valuable nutritive agent and may be employed with unquestionable advantage as a food adjuvant. It is, of course, especially indicated in impaired digestive function, and its completely neutral taste is an important and noteworthy characteristic.

From the same firm we have received a specimen of "europhen," which is an iodoform substitute stated to possess antiseptic and healing properties superior to those of that body. Chemically it is an iodide of iso-butyl-alcohol obtained by acting on a solution of ortho-iso-butyl-alcohol with a potassium iodide solution of iodine, and is insoluble in water, but freely soluble in alcohol. It contains 27·6 per cent. of iodine, with which it readily parts company. It is a fine, yellow powder, practically odourless and non-poisonous. In the case of a long-neglected sore, one-half of which was dressed with iodoform and the other half (the worst) with europhen, the latter—so Dr. Nolda[1] states—was firmly cicatrised fully two days earlier than the former. These results are so promising as to merit extensive trial of this interesting derivative by the profession in this country.

CALIFORNIAN WINES (SOLIS BRAND).

(HAGUE, SMITH, & CO., 6, DICKINSON-STREET, MANCHESTER; AND GILROY, CALIFORNIA.)

California, or the Golden State as it is called, is now becoming widely known as a country where the fruits of the earth grow luxuriously and abundantly. It possesses a comparatively virgin soil, yet already the culture of the more delicate fruits—as, for example, the grape—is meeting with distinct success, judging from the excellent qualities of the wines produced there. We have recently had samples submitted to us from the Solis Wine Company, of Gilroy, for examination and analysis. Three types were chosen for this purpose. Side by side with the analytical results obtained they are as follows:—Solis burgundy: absolute alcohol by weight 11·23 per cent., by volume 13·90 per cent., being equal to proof spirit 24·36 per cent.; sugar, 0·15 per cent.; total acidity reckoned as tartaric acid, 0·76 per cent.; extractives, 3·98 per cent.; mineral matters, 0·30 per cent. Solis claret: absolute alcohol by weight 10 per cent., by volume 12·40 per cent., being equal to proof spirit, 21·73 per cent.; sugar, 0·14 per cent.; total acidity calculated as tartaric acid, 0·69 per cent.; extractives, 2·63 per cent.; mineral matters, 0·30 per cent. Solis Hermitage: absolute alcohol by weight 10·92 per cent., by volume 13·52 per cent., being equal to proof spirit 23·70 per cent.; sugar, 0·14 per cent.; total acidity reckoned as tartaric acid 0·57 per cent.; extractives, 2·53 per cent.; mineral matters, 0·23 per cent. Apart from the satisfactory taste which each wine exhibits, it will be seen that they are free from an excessive amount of free acid constituents, while the sugar is practically *nil*. The burgundy is a fine full-bodied wine of strong grape flavour; the claret is a similar wine, but of medium character; and the Hermitage is a wine of a lighter kind, well suited for table use. It is satisfactory that wholesome wines like these, which compare favourably with older-established produce, can be obtained at really reasonable prices.

VI-COCOA.

(JAMES EGGO, BIRMINGHAM; AND 6, SOUTHGATE-ROAD, WOOD-GREEN, LONDON, N.)

If chemical analysis is worth anything in indicating the nutritive and tonic value of a preparation, then the above must be assigned a place in the front rank of really valuable foods, since it is the embodiment of the numerous principles contained in malt, hops, kola, and cocoa. While this is partly evident to the taste, further and stronger confirmation of the statement is afforded in the fact that we succeeded in extracting and recognising a tolerable crop of caffeine crystals. Vi-cocoa is, however, the conception of a medical practitioner, who (we quote an accompanying leaflet), "because of his professional duties, has disposed of the recipe to," &c. We are prepared to allow that this preparation is probably of distinct value as a restorative and stimulating food, but we regret to find that a member of the medical profession has lent his name to an enterprise of this kind.

UNSWEETENED CONDENSED MILK: "FIRST SWISS BRAND."

(FIRST SWISS ALPINE MILK EXPORTING CO., 17 AND 18, ST. DUNSTAN'S HILL, E.C.)

That the reproach which is so often levelled against concentrated milks—i.e., that they are so frequently deficient in

[1] Therapeutische Monatshefte, October, 1891.

fatty constituents, is not applicable in the present instance is evident from the result of our analysis. Thus the composition of the condensed milk was found to be as follows: total solids, 37·65 per cent.; fat, 9·00 per cent.; mineral matters, 2·10 per cent.; water, 62·35 per cent.; while on diluting it with two and a half volumes of water a liquid giving the following composition was obtained: total solids, 15·06 per cent.; fat, 3·60 per cent.; mineral matters, 0·84 per cent.; water, 84·94 per cent. This corresponds with ordinary cow's milk of excellent quality. The sample was free from objectionable preservatives and added sugar, while no metallic contamination could be traced. So long as these excellent qualities are maintained the milk may be freely recommended for infant and invalid use as well as for ordinary purposes. We read with surprise—as others will—the statement of Mr. Goodfellow, contained in his report on this brand, to the effect that cane sugar "gives an excess of carbonaceous material *very harmful to the body*."

OVALINE SOAP AND OTHER TOILET PREPARATIONS, MADE FROM YELK OF EGG.

(THE OVALINE SOAP CO., 52, KING-STREET, REGENT-STREET, S.W.)

It is well known that the chief proximate constituents of yelk of egg are vitelline (a peculiar proteid substance), nearly 15 per cent.; of fats (olein and palmatine), besides cholesterine and lecithin, an organic compound containing phosphorus, and a yellow colouring matter. The toilet preparations referred to above (ovaline hair-wash, shaving-cream, ointment, &c.), which are said to be prepared with yelk of egg, should therefore give some indication of the substances just enumerated. The evidence of these in ovaline soap is conclusive. Thus a strong solution of it yields, on boiling, several albuminous flocks, and a silver coin placed in the solution blackens on prolonged immersion from the phosphorus compounds present. Still further corroboration is afforded in the fact that the mineral matter obtained by incinerating the soap was found to contain phosphoric acid—an entirely foreign constituent in the ash of ordinary soap. Apart from the fact that the soap employed is of excellent quality, being free from excess of alkali and moisture, the presence of a definite proportion of fresh yelk of egg probably endows it with properties peculiarly agreeable and salutary to the skin, since not only is this addition calculated to give the latter a beneficial protective influence, but, by reason of the presence also of the easily saponifiable egg fats, protection against the injurious action which some soaps, by the chance excess of ulkali contained in them, will occasionally produce on very delicate skins is doubtless to some extent secured. In the other preparations made with the same material we obtained similar evidence of the presence of the principles of yelk-of-egg, which may be regarded as serving a like end.

VIKING CONDENSED UNSWEETENED MILK.

(THE NORWEGIAN MILK CONDENSING COMPANY, LIMITED, CHRISTIANIA, NORWAY; AND BOTOLPH HOUSE, EASTCHEAP, LONDON, E.C.)

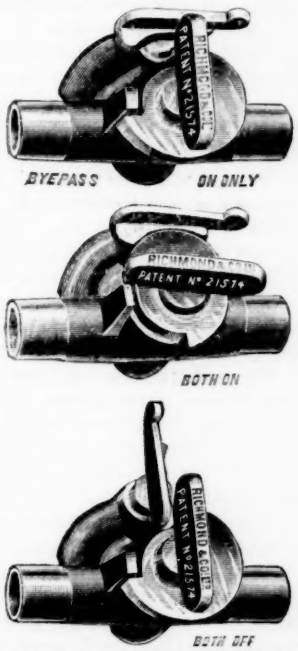
It is satisfactory to be able to confirm, in practically every particular, from the results of an independent examination, the claims made in regard to this concentrated milk. Thus our analysis agrees substantially with that already advertised concerning it. The results were as follows: total solids, 32·43 per cent.; fat, 9·00 per cent.; mineral matters, 1·89 per cent.; water, 67·57 per cent. On mixing one part of the milk with two and a half parts of water the resulting mixture exhibits the following composition: total solids, 12·97 per cent.; fat, 3·60 per cent.; mineral matters, 0·75 per cent.; water, 87·03 per cent. This accords with the composition of cow's milk of excellent quality, containing, it is satisfactory to add, the normal proportion of fat. It is preserved without, and is free also from, objectionable matters and metallic impurities. While we concede its undoubted value in infant feeding, it is obviously also well adapted for export and travelling purposes.

New Inventions.

A TAP REGULATOR FOR GAS FIRES.

THE tendency of atmospheric burners to "light back" was one of the principal defects attached to gas fires, which was pointed out in the report of THE LANCET Special Analytical Sanitary Commission on Smoke Prevention and Perfect Combustion (III. Gaseous Fuel, Gas Heating, and Gas-cooking Appliances).[1] Since the appearance of this report we have had occasion to describe several burners which have been designed to prevent this occurrence, but obviously there is then a danger of running the gas at too low a pressure, so that, although lighting back may be prevented, the flames are easily extinguished on the slightest draught, in which case coal gas would escape unburnt. Moreover, if the flame were turned so low as to be near extinction point, the heating effect on the "fuel" would be practically *nil*, which would therefore fail to relight the gas when once blown out. To obviate the possibility of such an occurrence some means are required which will automatically restrict the use of the burner to, and within the extremes of, a range of heating power which is at once useful and safe.

One method of effecting this object is by a compound tap such as is described and figured below. It consists of two



taps (large and small), the former of which regulates the range of heat-giving power between the maximum and minimum, and the latter admits the minimum supply which is compatible with usefulness and safety. The taps are so arranged relatively to each other that on opening the large and main tap the "cam" on its plug acts on the lever of, and opens, the small or bye-pass tap, and when the large tap is "full on" the bye-pass is also "full on" and is locked so as to be immovable. During all subsequent regulations of the supply by the main tap the bye-pass remains open "full on," supplying a minimum amount of gas, below which it is neither useful nor safe to go—say a supply equivalent to between 0·2 and 0·3 in. One main feature of the device is that the automatic opening and locking of the bye-pass prevent a forgetful or ignorant servant from either failing to open the bye-pass or attempting to regulate by it. A separate movement of each tap is necessary to extinguish the fire.

The manufacturers and sole licensees of this useful contrivance are Messrs. Richmond and Co., Limited, of Warrington, who are supplying them gratis with their "Majestic" Fires.

[1] THE LANCET, Nov. 25th, 1893.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 2, 1895.

IN many departments of medicine the powers of diagnosis possessed by the physician have far outstripped the means of treatment at his disposal; and this is what might have been expected, for the signs and symptoms on which the diagnosis depends are, in the main, the result of comparatively simple laws of chemistry and physics, but the treatment depends in a much greater degree on the more highly complex laws of life itself. Occasionally, however, it has happened that our power of remedying a morbid condition—especially by operation—surpasses our power of diagnosing with certainty its presence, and the question then arises, What degree of certainty should be required before proceeding to operate? The answer to this question must obviously depend on the severity of the operative treatment as compared with the danger from the disease.

We have had the great pleasure to be able in recent numbers of THE LANCET[1] to present to our readers an address by Professor AUGUSTO MURRI, delivered before the Lombard Medical Association, who deals with the question in a manner whose fresh and learned originality must, we are certain, have been generally patent. In this address he points out that, while in many cases an acute abscess of the brain may be diagnosed with some certainty, a chronic cerebral abscess may exist and yet may give no positive indication of its presence. Too often the condition is only discovered by post-mortem examination. The diagnostic indications of a chronic abscess of the brain are few and untrustworthy. In the place of first importance among such indications is the presence of a sufficient cause, such as middle-ear disease, local injury, or caries of the cranial bones. Not that the exciting cause need be so grave as these; the abscess may follow any of the specific fevers, and as these occur so very frequently without leaving any such sequela the connexion may not be recognised. The signs which a chronic cerebral abscess may present are few in number—pyrexia, headache, and optic neuritis, but none of these can be depended on: pyrexia is often completely absent, and, as Professor MURRI points out, in many cases a subnormal temperature is present; the headache, if localised and persistent, and occurring after one of the usual exciting causes, is suggestive, but nothing more; and optic neuritis may equally be a sign of a tumour or meningitis. Other symptoms, such as paralyses, though often of use in determining the situation of a lesion, are of no value in deciding as to its nature. If we have in any case a sufficient cause, and the signs already mentioned are well marked, we may be fairly confident that an abscess is present, but we cannot be at all certain. Several of the extremely interesting cases with which Professor MURRI has illustrated his paper demonstrate this most definitely; all the usual indications of a chronic cerebral abscess have been present, and yet at the necropsy some other lesion has been found. Yet the disease is one most dangerous to life, and if timely surgical aid is not afforded death must result. Under these circumstances what should be done? Shall we wait until symptoms arise which will definitely satisfy us that an abscess is present? If so, it will in a large majority of cases be too late to operate; the abscess will have extended and have ruptured either on to the surface of the brain or into one of the ventricles. The surgeon is on the horns of a dilemma: if he operates before he is certain of the presence of an abscess he may find some other lesion for which he can do nothing; and if, on the other hand, he waits until he is sure of his diagnosis the delay may prove fatal to the patient. The decision must depend on the amount of danger connected with the operation itself. A very similar case is to be found in many abdominal conditions where, an exact diagnosis being impossible and the danger to the patient great, it is now customary to perform an exploratory laparotomy. If, then, exploratory trephining is in itself as little dangerous as exploratory laparotomy, it is obviously the duty of the surgeon, notwithstanding the weakness of the diagnosis, to attempt to discover and cure the morbid condition by opening the skull. With complete antiseptic precautions the operation itself, if carefully performed, is practically free from risk, and it is seldom indeed that it is followed by any disastrous effects.

It is a plea for greater frequency in this operative proceeding that forms the text of Professor MURRI'S admirable contributions to our columns. The tendency at the present time among Continental surgeons is to await a certain diagnosis, with an eminently unsatisfactory result, for the statistics show that waiting for more data means waiting for more deaths, as by the time the diagnosis is certain the patient is dying. It may be that in the future some diagnostic method will be discovered whereby the nature of an intracranial lesion may be determined with the same certainty that we diagnose the nature of an intrathoracic condition; but that time is not yet, and at present the surgeon has to decide the question whether he shall leave a patient with a chronic cerebral abscess to die unaided, or whether, even though the diagnosis may be far from certain, he will by operative interference, undertaken with a reasonable chance of success, make an attempt to relieve the sufferer. It is in no spirit of reckless interference, but with well-reasoned sense, that Professor MURRI urges upon his professional colleagues the not infrequent necessity for the bolder measure; and we note with pleasure his compliment to British surgeons, whose records have shown exploratory measures to be frequently attended with exceedingly satisfactory results.

IN connexion with the publication of Surgeon-Colonel HARVEY'S presidential address at the inauguration of the Indian Medical Congress at Calcutta we recently adverted to some questions in which, apart from what may be termed the medico-social aspects of such a Congress, Eastern and Western civilisation were alike interested, and concerning the elucidation of which the discussions at such a Congress

[1] THE LANCET, Jan. 5th, 12th, and 26th, and in the present issue.

might fairly be expected to render invaluable aid. Some of these were questions of fact, some questions of theory. There are also questions constantly arising in scientific medicine—of a clinical, bacteriological, and practical nature—which may be said to have assumed everywhere a new aspect when tested and considered in the light and by the aid of methods of modern medical research.

The subject of tropical life, its diseases and their sequelæ, is not one of scientific or medical interest merely. It is full of practical everyday interest—to our own country in particular, for we are in constant communication with India and the colonies, with the result that many of the inhabitants of the British Empire are often being subjected to the influence of changes of climate. Professor VIRCHOW, in his address at the Congress of German Naturalists and Physicians at Strasburg in 1885, called attention to a sphere of research in which, he alleged, that neither the English nor the French had hitherto accomplished anything of importance—namely, the modifications of the organism, and particularly of the special alterations of each organ, connected with the phenomena of acclimatisation.

There is probably no country in the world where disease and death-rates are liable to such great fluctuations as India, according as epidemics are present or absent. The amount of labour that has been expended upon the natural history of these epidemics and upon the accumulation of a number of details, converging in certain definite directions according to the views advocated by authorities at different times, has been enormous. The geography, statistics, meteorology, food-supply, and climatic and local conditions prevalent at the time of an outbreak of epidemic disease have all been again and again patiently and laboriously worked out, without our being really any nearer the root of the matter, however, as regards the discovery of the true cause. The very multiplicity of the conditions and phenomena investigated proved most embarrassing, for it was often difficult or impossible to determine and select those which were really relevant to the inquiry, and however important or interesting in themselves they failed to be fruitful, mainly because they lacked precision and did not fall in with the inductive spirit of modern experimental science. All such investigations require to be supplemented and complemented by inductive and experimental methods of research and observation. Whether we must in future look to micro-pathology alone remains to be seen, but it is certain that no search for the causes of disease can be deemed adequate or complete where bacteriological investigations are excluded.

Surgeon-Lieutenant-Colonel CROMBIE concluded his excellent address as president of the Medical Section of the Congress on the fevers of India with an appeal to his medical hearers in Calcutta not to allow France and Germany to remain in the van of bacteriological research, but to make a more careful study of the cases which came under their observation in India. As the Sanitary Commissioner with the Government of India remarked in one of his late annual reports, what is wanted in India is not more private work, however enthusiastic, but work by trained experts in properly equipped laboratories to supplement the clinical work of medical officers. THE LANCET has frequently urged the need of this, as also some organisation for the prompt investigation of outbreaks of disease at the time of these occurrences and while facts are still fresh in the minds of local observers, to be followed by such local remedial measures of a sanitary nature as are apparently required, either at once or after fuller investigation and report. In this way scientific and practical work would go hand-in-hand, and some real progress would be made. India presents a rich field for investigations of this nature. The fact that KOCH'S comma bacillus, for example, is present in cases of cholera may be taken as established; but its causal connexion with cholera has, in the opinion of many, still to be demonstrated as an adequate explanation of all the phenomena of that disease as it comports itself in Indian experience. Again, Surgeon-Lieutenant-Colonel CROMBIE is a convert to the amœbic theory of malarial fever, and says that, although there are some striking points of contrast between the order of frequency of intermittent fevers in India as compared with other countries — the Roman Campagna, for example — still, wherever malarial fever is found to exist—in America, Africa, Asia, and Europe, and in localities differing from each other in every particular of climate—the essential phenomena remain the same, and LAVERAN'S micro-organism is discoverable in the blood. Under such circumstances it seemed to him to be impossible to offer any longer a reasonable resistance to LAVERAN'S theory of its causation. As regards the remittent fevers met with in India and semi-tropical climates some are attributable to malaria and some are not, and it is obviously of much practical importance that these should be differentiated, the one from the other, for quinine and arsenic are the proper remedies in the one case and inefficacious, if not actually injurious, in the other. Nor are all the cases of a continued non-malarious form of fever encountered in India and elsewhere clinically identical with typhoid fever. There is, moreover, a great deal still to be worked out in regard to this particular fever in India. Why should typhoid fever be so frequently and disproportionately present among our young European officers and soldiers during their earlier years of service in that country as compared with the natives? Is the typhoid bacillus of EBERTH and GAFFKY to be found in all the cases of typhoid fever met with in India, because the discovery of this bacillus would serve to distinguish the nature of the fever and stamp its identity with the typhoid fever of other countries? These and many other questions in Eastern medicine and pathology are still awaiting solution, and India affords a wide field for their investigation by the aid of modern methods and appliances of pathological and bacteriological research. Nor can it be denied that these are matters of urgent practical importance, for the loss of life and sickness caused by typhoid fever—to take only one example—among the young manhood of the British army in India amount to a terrible total annually.

Surgeon-Major DIMMOCK, Professor of Midwifery, Grant Medical College, Bombay, in his address to the Obstetrical and Gynæcological Section of the Congress, discussed the causes and effects of puerperal fever in India, and showed how in that country we are confronted with conditions of climate, season, race, habits, and environment, and not alone with special disease entities. SEMMELWEISS long ago put us in possession of the axioms of puerperal fever and

its relation to puerperal infective septicæmia. Professor DIMMOCK has extended his inquiries into the different forms of fever met with in the pregnant or puerperal woman in India. Mr. WEATHERLY, moreover, has related in a paper read before the same section of the Congress the results of his experience in Africa, Florida, and India in regard to the influence of malaria in abortion and sterility.

EXCEPTION may be taken to the title of a pamphlet we have received from Dr. ARTHUR RANSOME—namely, "The Consumption Scare,"—but without entering fully into the question of whether there is or is not a "scare" we can say with truth that there exists a tendency to attribute to pulmonary phthisis a much more gravely infectious nature than it is proved to possess. Dr. RANSOME quotes from a paper issued by a society of medical officers of health, setting forth with elaborate detail the way in which phthisis is spread by the dust of dried sputa, and adding directions as to disinfection, cleanliness, and similar precautions; but, as he rightly remarks, nothing is said therein about the security given by these means. Secondly, he quotes a paper by Dr. ARNOLD CHAPLIN on the Necessity for placing Tubercular Phthisis under Control, which paper contains some stringent regulations for segregation.

Let us try to picture what this drastic treatment of phthisis would mean to the sufferers by recalling the condition of the leper so recently as the seventeenth century. In the seventeenth century leprosy was the awful and abiding scourge of the peoples of Greece and the Ægean Islands. It was known to be infectious, and the means for the prevention of the spread of the disease were carried out to their logical end. The island of Leros, with the exception of one or two villages on the coast, was entirely given up to lepers. The territory they inhabited was called the "Desert of St. Cosmas." Communication with the rest of the island was entirely cut off by natural obstacles, as rocks and rivers, and where these failed by walls. There were two lines of fortification, so to speak, surrounding the desert. Inside the first strangers might go twice a year and return after holding converse with the inmates; inside the second, if anyone went, return was absolutely prohibited. Children, and there were many such born in the desert, were never permitted to leave it; at their death they were buried within the precincts. The lepers were ministered to by Basilian nuns and priests, who voluntarily undertook the duty. These also, once they had passed the second gate, never came out again. The system was undoubtedly effectual against the evil, and, moreover, was only logical. If segregation is to be of any use in a disease it must be complete, uncompromising, ruthless. (We are using the term segregation in its strictest meaning, and do not intend to overlook the benefits clearly to be derived from systems of notification properly worked. These are not segregation at all, and have not been suggested as of possible use in the prevention of phthisis.) To make minor attempts at secluding the infectious sufferers is to play at preventive medicine. Without debating the question further, does anyone imagine that our knowledge of phthisis warrants the recommendation of such measures towards the phthisical? Yet if segregation is to be really useful, the Isle of Wight, say, should be transformed into an isle of Leros.

The idea that phthisis is an infectious disease is an old one in the south of Europe, but of comparatively recent date in this country or in France and Germany. Dr. WILLIAM BUDD, in our columns (as early as 1867), was the first observer in England to make the suggestion that phthisis is a true zymotic disease, that the tuberculous matter is itself (or includes) the specific morbific material by which the disease is propagated from one person to another, and that by the destruction of this matter on its issue from the body, seconded by good sanitary conditions, may hope to rid ourselves of this scourge. These views met with but little favour at the time, and "it was not until after KOCH'S great discovery of the essential organism of tubercle that any idea of serious danger occurred to the medical mind." It is not with any intention of saying, we presume, that no source of danger exists from infectivity in phthisis that Dr. RANSOME has written this pamphlet, but rather to show that infectivity has lately gained too much prominence, and the influence of pure air and light, especially sunshine, as the preventive and curative measures provided by nature proportionately belittled. In some experiments carried out by Dr. RANSOME and Professor DELÉPINE an exposure of dried sputum from tuberculous patients to sunlight for one hour entirely destroyed the bacilli, so that guinea-pigs—animals most susceptible to tubercle—were quite unaffected after being inoculated with the same. Specimens of the same tuberculous dust gave tubercle to guinea-pigs after being kept in the dark with little air for thirty-five days. That light and air are two potent preventive agents these experiments would tend to show, and we recommend them to the consideration of those who are concerned in the construction of our new buildings.

Annotations.

"Ne quid nimis."

WORKHOUSE ADMINISTRATION AS AFFECTING THE SICK.

WE noted in the last issue of THE LANCET an example of delay, which proved fatal, in the case of an aged inmate of the Stepney Workhouse, and remarked upon the many imperfections which still obtain in the arrangements for the care of the sick poor. This week we have received an important circular from the Local Government Board, addressed to the newly elected boards of guardians, dealing with this very subject. The circular deals in a most thorough manner with the duties of the medical officer, lays special stress upon the absolute necessity of a supply of good nurses, and strongly urges that pauper inmates should no longer be allowed to act as assistant nurses, except under special circumstances. The guardians are exhorted to see that due provision is made for nursing by night as well as by day, that all nurses should be adequately remunerated, and that the most careful consideration should be given to any representations made by the medical officer of the workhouse in the discharge of his prescribed duties. There is no reason why the sick poor in workhouses should not be treated as efficiently as they are in hospitals. Of course, the cases for the most part are those of a very chronic nature, but they are none the less distressing to the patients nor do

they need anything less than the most constant attention. The days of workhouse horrors as described by Dickens have, we may hope, passed away for ever; but even now there is need for more of the old spirit which animated the mediæval "bede-houses," when a sick poor man was looked on as the peculiar care of the Church and not, as we fear is in some measure the case now, an extra burden to the long-suffering ratepayer. The question of the relief of the sick poor has always been a matter of deep concern to THE LANCET and its founder. As far back as 1837 the then Home Secretary brought forward a motion, a similar one having been previously given notice of by Mr. Wakley, the ultimate outcome of which was the Poor-law Amendment Act of 1842.

A CASE OF APPARENT DEATH.

WE have received from Dr. R. Mitchell of Bury the following graphic detailed account of the remarkable case of resuscitation which has been so widely commented upon in the press: "Mrs. Sutcliffe of Heap Bridge, Bury, Lancashire," Dr. Mitchell writes, "was a very healthy woman up to the last three years, when she began to suffer from pain at the stomach and sickness with diarrhœa. She gradually got worse and became very emaciated—white and bloodless in appearance. Three or four days before death she on several occasions appeared to be on the point of death, and at these times the friends were all assembled to witness her last moments. On the night of Jan. 16th she was very restless up to midnight, when she asked to be placed on her left side, and all the pillows and bolster to be taken away, and she went into a quiet sleep which lasted till 2.30, then she gradually stretched her arms by her sides and her legs straight down, and became stiff and cold. Her jaw dropped, leaving her mouth open, and the son and nurse placed a little ice in it, but it ran out again. She did not open her eyes, did not breathe, and her heart, which was felt by her son and nurse to slowly beat, gradually ceased in about ten minutes. The nurse, experienced at death-beds, and the son believed her dead. They left her as she lay for one hour and twenty minutes, when they carried her upstairs to a bedroom with the assistance of a woman who had often helped in cases of death before. And these women remarked that the body was very stiff and cold, and that they would just have time to 'wash and lay her out' before she would be too stiff. Arrived in the bedroom, the body was placed on a sheet on the floor, washed, and dressed in the customary dead clothes, and then placed on a bed with a board beneath it. The laying-out was completed by 5 A.M., and during the morning friends frequently went to see the supposed corpse and all aver that there were no signs of life. The undertaker who measured the body for a coffin believed her to be dead. Several who had occasion to touch the body said it was cold and stiff as death. About 10.30 A.M. two women were arranging the chamber when the supposed corpse coughed, the pennies which were on the eyelids fell off and the women ran downstairs in terror and could not be persuaded to go back. Other women went and watched the gradual recovery of the life. The eyes opened without signs of consciousness, the breathing became freer and stronger, and the pulse better. These women say 'she gradually and slowly came round.' I saw her about 1.30 P.M.; she was lying as 'laid out,' her eyelids opened and closed, her breathing was regular and the bedclothes could be seen to rise and fall on the chest, her hands were clasped across the chest, and the pulse was easily felt, soft and regular. She was quite unconscious; the limbs were stiff and cold, possibly due to lying in a cold chamber for eight hours. She was removed to a warm bed, hot bottles were applied, and brandy and warm water given in small quantities, and in the evening she spoke in whispers, asking to be put in her own bed, and other sayings, which showed her to be conscious. She never made any allusion to the state she was in during the morning and was never conscious before the evening of that day. She gradually became weaker and weaker, and died at 7 A.M. on Jan. 18th, twenty-eight hours after the supposed death, in exactly the same attitude and with exactly the same signs as in the preceding morning. The body was very much worn, and in sleep the face was like that of the dead. She had taken nothing but ice or a little water for days. There was an extensive bedsore slough at the bottom of the spine; it was black and had been exquisitely painful. The above is a true statement of the 'resuscitation of an apparently dead woman' according to the daily papers of the last week. (Signed) R. MITCHELL, M.D." From this account the case seems to have some analogies with the condition sometimes observed in cholera. The patient was obviously reduced to the last stage of asthenia, and the temporary suspension of vital functions, followed after the brief rally by actual death, is not surprising, although no doubt exceptional.

DEATH OF DR. LOMBARD OF GENEVA.

WE regret to have to announce the sudden death on Jan. 22nd of Dr. Lombard of Geneva, the leading medical climatologist in the world. He was born at Geneva in March, 1803, and had therefore nearly completed the great age of ninety-two when, without showing any notable failure of mental power, he passed suddenly away. Up to the last he took a keen interest in medical science and welcomed the reported successes of sero-therapeutics in diphtheria. Dr. Lombard commenced his medical studies at the University of Edinburgh (1822–24), then at the zenith of its fame, but, unable to stand the rigours of a Scotch climate, he passed to Italy, where he at once began to study the subject which favours his great claim to a niche in the Temple of Fame. He completed his medical education in Paris under Andral and Louis, graduating in 1827, his doctorate thesis being on Tubercles. He settled in Geneva in 1829 and gave himself up to hospital and consulting practice and literary labours, the latter resulting in 1856 in the publication of his "Climats de Montagne," of which a third edition appeared in 1873, followed by his monumental "Traité de Climatologie," which was published from 1877 to 1880. Until the age of eighty-three years he continued his scientific and practical labours, and in 1882 presided over the International Congress of Hygiene at Geneva. He was a man of great probity, charity, and full of the truly religious spirit, and was universally esteemed by his fellow townsmen, who were proud of his high reputation. It is interesting to find that Dr. Lombard, amongst his numerous distinctions, was an honorary Fellow of the Medical Society of London.

LEGISLATION ON PENNY ICES.

SIXTEEN years have already elapsed since we denounced the danger involved in the manufacture and sale of penny ices.[1] The colouring material, even when aniline dyes are used, is employed in such minute quantities that this offers no particular danger; but the use of bad milk and bad eggs in extremely unhealthy and filthy localities is a very serious matter. The manufacturers of penny ices are chiefly Italians of the lowest class, and they live crowded together in Italian colonies, the principal one being at Saffron-hill. They inhabit houses owned by a "padrone," who exploits their labour, finds the necessary capital, and is careful not to charge them any rent for their sleeping accommodation. Thus he is not a common lodging-house keeper and escapes

[1] THE LANCET, Aug. 24th, 1878, and Oct. 18th, 1879.

the action of the law. In a padrone's house of this description our commissioners found in the rooms three and four beds; some were occupied by men and women, others by single men or single women; all conditions and sexes living promiscuously together. Some of these Italians were piano-organ men, others traded in penny ices; and these ices were mixed or made on the premises, in the midst of indescribable filth and overcrowding. The milk, the eggs, the cornflour mixture, &c., as we reported at the time, are left standing for hours in the foulest atmosphere, are manipulated by the dirtiest and most unwashed Calabrians, and are mixed—sometimes boiled—in the same saucepans and cauldrons employed to cleanse dirty linen. Of course, in the case of such a population which has no conception of the laws of sanitation, the liability of the contamination of the stock of milk, eggs, and ice creams is a factor by no means to be disregarded. Obviously ices should be made with care and with all the precautions necessary to prevent such contamination. But so long as no supervision is exercised by the authorities the Italian padrone is not likely to indulge in so extravagant a luxury as cleanliness. Fortunately we are now informed that the Local Government Board has written to certain of the metropolitan vestries notifying that a Select Committee will be appointed to inquire into the advisability of instituting legislative action so as to secure the registration of itinerant ice-cream vendors. Thus at last we may hope that something may be done to improve the conditions under which this popular "delicacy," the penny ice, is made.

MEDICAL MEN AND INSANITY IN RELATION TO LAW.

THERE is, perhaps, no subject throughout the whole of medical jurisprudence which offers such difficulties to both medical men and lawyers as insanity. Numbers of both medical and legal text-books on the subject exist, all excellent in their way, but with the grave defect that the medical ones are too technical for the lawyers, and *vice versâ*. Nor is it only the members of these two faculties who are in need of a clear and lucid exposition of the subject. Any educated man is liable to have to serve as a special juryman and to have to decide cases in which insanity may bear a large part. It is because we are sensible of this want in medico-legal literature that we welcome the announcement of a work entitled "The Insane and the Law," written by Percy Smith, M.D., F.R.C.P., Physician at Bethlem Royal Hospital, F. Pitt Lewis, Q.C., and A. J. Hawke, barrister. From an advance sheet of the introductory chapter we learn that the book will deal with the *personal* position of the insane rather than with their property, as do the existing legal works on the subject, while existing medical books treat of the disease as such only; whereas the forthcoming work will try to set out in terms sufficiently plain for the non-medical mind, on the one hand, and the non-legal, on the other, the subjects of—(1) Detection and treatment; (2) maintenance; (3) responsibility, both civil and criminal; and (4) capacity to give evidence as a witness or to make a will. The authors' names are a sufficient guarantee that the book will be written by experts, and we await the appearance of the work with the consciousness that it will supply a long-felt need.

THE COST OF MEDICAL TREATMENT.

THE managing committees of hospitals have reason to think somewhat gravely of the cost of medical treatment. The drug bill, the figured columns relating to surgical necessaries, and the order lists of dietetic accessories are as leaden weights upon the heart of their endeavours to benefit mankind. Nor is the general practitioner free from a like source of anxiety, at all events if, guided by the metropolitan method, he adds to professional skill and labour the generous charity of dispensing medicines to an opulent community. He and others of the oppressed in pocket may, therefore, learn with an interest born of new hope that it is possible, even easy, out of the smallest professional gains to make practice pay and more than pay. Such, at least, is one obvious moral to be derived from certain published statements relating to the Lincoln Oddfellows' Medical Institute. The lodge, it is said, provides for 4889 members. Its receipts for last year amounted to £1155 1*s.* 4*d.* Of this sum £500 17*s.* went in salaries to medical officers &c. £231 for rent and general expenses, and £161 5*s.* 11*d.* for drugs, the credit balance being £206 0*s.* 3*d.* Prescriptions numbered 31 431, and the drug bill distributed over these consists therefore of components having each an average value of 1¼*d.* This result is certainly very satisfactory in its purely financial aspect. As to whether it represents a relatively high average of medicinal or surgical efficiency we are not so certain. If the panoply of the Oddfellows' attack upon disease consists merely of stock medicines of a simple character, we may well agree that it does; but it is clear that in such an armament there exists no more than a nominal provision for many weapons of proved quality, to which our present modes of treatment owe much of their mastery. We fully recognise the value of economy, especially as applied in the medical practice of charitable institutions. It is evident that the Lincoln Oddfellows, and many other like associations, share our views on this matter. At the same time, we should like to be assured that they have not, with regard to it, bettered the suggestions of business prudence after the manner familiar to some parochial authorities. An expenditure so trifling as 1¼*d.* on each prescription seems hardly compatible with power and effect in dealing with the varied and often dangerous phases of disease.

CLINICAL OBSERVATIONS ON WILD BEASTS.

THE *Bristol Medico-Chirurgical Journal* for December contains a remarkable paper by Dr. A. J. Harrison, in which he embodies some of the more striking events in connexion with a branch of practice of which few have much experience—that of physician to the inmates of a Zoological Gardens. The "tiger and ape" that lie dormant in every man's nature and occasionally get loose and secure for their late host the notice of a police magistrate are here found in plain, unvarnished form as one would expect, and Dr. Harrison mentions several crimes of violence committed by the animals under the influence of jealousy or sexual excitement. But what we should not expect to find is so much similarity among the cases related to the diseases and accidents most familiar in human experience. Intussusception, pericarditis, empyema, phthisis, Pott's paraplegia, cancer, ingrowing toe-nail, and ruptured uterus are examples of what we mean, and they serve to remind us that the gulf on the physical side between man and the brute is not so wide as might be imagined. Dr. Harrison's most interesting patients were, fitly enough, the lions. The first monarch, Hannibal by name, was found dead in his cage, the cause of death being hæmorrhage due to rupture of an enormously enlarged spleen which weighed twenty-one pounds and a half, at least twenty times the normal weight. Just sixteen weeks later (the average period of gestation in the lioness) his widow was confined of twins, both of whom subsequently had an interesting medical history. One, a lioness, had a prolonged labour and died from a ruptured uterus, an accident which Dr. Harrison has also known to occur in a cheetah. The other twin—a lion—was for many years an ornament to the Gardens, and died from "senile decay," but in his youth he suffered from an ingrowing toe-nail, which caused him so much suffering that its removal was necessitated. Chloroform is badly taken by these larger carnivora,

according to Dr. Harrison, causing much excitement and struggling, and other expedients had to be devised. Ultimately he was coaxed into a smaller travelling cage, and from that he was dislodged into a strong box just large enough to contain him, and, after he was in, in order to diminish his struggling space, large pieces of wood were pushed in to occupy any interstices. After violent struggles, which often caused a prudent retreat on the part of spectators, the lion incautiously put his paw through a hole which had been left in the front of the cage. The ingrowing nail was seized with carpenter's pincers, and the patient and the surgeon between them managed to induce the paw to part company with the nail. Immediately the operation was over the lion gave no trouble, and appeared to be as sensible of his surgeon's skill as was the lion of Androcles. Dr. Harrison, like many competent observers, throws great doubt on the theory that the snake "fascinates" his victims. He quotes instances where pigeons and even timid rabbits remained in the cage for several days, the python treating them in a kind and friendly way and caressing them, and then, as soon as time had sufficiently sharpened his appetite, killing his prey in a sudden and treacherous fashion. Regarding the fasting of snakes after gorging their prey he has some interesting observations. Seven or eight months of voluntary fasting have been observed, and one python who ultimately died is said to have lived for eighteen months without taking food, a record that no "fasting man" is ever likely to break.

DEATHS UNDER ANÆSTHETICS.

WE are indebted to the senior house surgeon for a careful account of a recent death under chloroform which took place at the Bristol Royal Infirmary on Jan. 14th. The patient, a woman aged fifty-five, suffering from trismus caused by a carious wisdom tooth, sought for relief and was admitted into the infirmary. On the 14th she was given chloroform after careful examination of her chest. The emphysema of the apices and borders of the lungs and dilatation of the tricuspid orifice revealed by the necropsy were apparently not sufficient to give clinical evidence, as we are told there was nothing abnormal about the chest. Chloroform was the selected anæsthetic, as it was believed nitrous oxide gas or ether would not have overcome the muscular spasm (trismus). Skinner's mask was used. The struggling stage, although violent, was not prolonged, and during it the chloroform was given with due caution. Anæsthesia was induced in four minutes, about three drachms of the anæsthetic having been used. At this time the corneal reflex was absent and the pupils were moderately contracted, the respiration and pulse being normal. The patient was then wheeled into the operating theatre, the transit occupying a few seconds. She was lifted on to the operating table, and respiration was then noticed to have ceased. At this moment slight cyanosis of the face was seen and the radial pulse was observed to be absent. The head and shoulders were pulled over the end of the table, the mouth opened, and the tongue pulled out with forceps, while artificial respiration was practised. The method of cardiac stimulation dependent upon rapid percussion over the heart area was also tried, and as these means failed electrical excitation of the heart was attempted, and finally acupuncture of that viscus was employed. The usual stimulants, nitrite of amyl and enemata, were also called into requisition, but no recovery took place. This unfortunate occurrence seems very difficult of explanation unless we regard it as a paralysis of the medullary centres through what was, not ordinarily speaking, an overdose of the chloroform. Moderately contracted pupils, with soft normal breathing, are hardly consonant with an excessive intake or a retarded output of chloroform. We are acquainted with an almost identical case which occurred some years ago at a London hospital. The patient was apparently lightly anæsthetised by chloroform, and upon being lifted from the trolly-couch on to the operating-table died at once. In that case it was believed that the movement, acting upon an incompletely anæsthetised person, had in some inexplicable manner initiated an inhibitory impulse to the heart. This explanation may or may not have much weight—at all events, a patient is probably seldom so imperfectly anæsthetised as to be a likely victim to such a state of affairs. We reported a recent death at the Middlesex Hospital which took place from the A.C.E. mixture. We have now been favoured with a further account of the occurrence and place it before our readers. The patient, it will be remembered, was to have been operated upon for suppurating glands in the neck. He was a muscular man of intemperate habits and was admitted into hospital the night before the operation was to have taken place. On Jan. 3rd he was given some freshly prepared A.C.E. mixture from "the ordinary flannel inhaler" (? Skinner's mask). He struggled very violently and had to be restrained. To overcome this a "little chloroform" was sprinkled upon the inhaler and the struggling passed off. The muscular rigidity became less marked in two minutes, the A.C.E. mixture being again given. "A little later" the breathing became shallow and the pupils dilated. The face then became pale and the pulse could not be felt. Respiration then ceased and cyanosis appeared. The usual restorative measures proved abortive. The necropsy showed a dilated right ventricle with fatty infiltration of the myocardium. The left heart was also dilated and fibrotic, the lungs were emphysematous, and the other viscera and brain were congested.

THE WIGAN BOARD OF GUARDIANS AND OUT-DOOR RELIEF.

IN an annotation which appeared in the last issue of THE LANCET we referred to this board in reference to their medical officer's salary, a few of the guardians being anxious to save the rates by attacking his salary. At their last meeting the Local Government Board found fault in respect to their out-door relief, which we mentioned was excessive. Mr. Jenner-Fust, the inspector, apparently did not agree with the medical officer's salary being attacked, but pointed out that the number of cases on the relieving officer's books could not possibly be visited and efficiently inquired into. Medical relief was generally the thin edge of the wedge, and every case should be visited. About £12,000 a year was the amount of out-door relief paid in the Wigan Union. He suggested that additional relieving officers should be appointed in one district of the union alone (Orrell). He found the acreage was 20,038, the population 24,000, and 661 cases on the books; while the total amount paid in out-door relief for the half-year ending last Lady Day was £2128. The Local Government Board believe that 200 cases on a relieving officer's books are quite enough for one officer to look after properly; but he found in No. 1 district 715 cases, in No. 2 district 1000 cases, in No. 3 district 987 cases, in No. 4 district 252 cases, and in No. 5 district 645 cases. Now it is evident either that these numbers cannot be efficiently attended to or that the Local Government Board is wrong as to its estimate. If this newly elected board of guardians wishes to put its house in order and save the rates it will first appoint an efficient staff of relieving officers, for the inspector stated that "he felt sure that many applications for relief were granted which, if thoroughly looked into, would be found to be cases which could manage for themselves, and he could not see that the circumstances of the Wigan Union were so completely different from all the other unions as to necessitate an amount of out-door relief which

was ten times as large as that of most unions." Is it to be wondered at, therefore, that the medical officer's extras are more than in other districts? But before altering the terms on which an officer has been appointed it would be well for the guardians to attack the bigger and graver question. Some guardians, we know, would prefer to underpay their officers and give relief indiscriminately, but such a proceeding is not to be encouraged, for, although it is right and proper to relieve poor and needy persons efficiently, yet there is the moral responsibility not to manufacture permanent paupers. If more relief were given to the needy and less to those who have no title or right to it the rates would be saved and thriftless impostures would disappear.

DIPHTHERIA IN LONDON.

THE Registrar-General is able to record that last week's mortality from diphtheria in London was below the corrected average for the corresponding week of the preceding ten years. True, the deaths were but one below that average, but even so it is pleasing to find them on that side. The deaths registered were 29 in number, a progressive fall from 50 in the week ended Jan. 5th. Of the total, 26 were of persons aged from one to twenty years and 18 were of infants in the first quinquennium of life. Six belonged to Islington, 6 to Poplar, and 2 each to Mile-end Old Town, St. George Southwark, and Greenwich sanitary areas. In Greater London there were 15 deaths, 8 of which occurred in West Ham and 2 each in Croydon and Epping districts.

AN APPEAL FOR A MEDICAL MISSIONARY.

THE Secretary of the Archbishop's Mission to the Assyrian Christians sends us a note on the need of a medical man in this work. Hitherto the Mission has had to depend for medical assistance upon Dr. Cochrane of the American Presbyterian Mission, who has always willingly afforded help. If any young medical man possessed of good health desires a field of interesting work, both from a medical and an ecclesiastical point of view, here is a chance for him. His outfit (in reason) and the expenses of his journey would be paid for him, and all drugs, instruments, &c., would be supplied and would be the property of the Mission. His salary would be £25 a year with board and lodging. This is not, it is true, a large scale of payment, but it is more than most house surgeons receive in London. The Mission field lies on the borders of Turkey and Persia, the climate is pleasant, and a good horse can be bought for £10. The "practice" would include ordinary diseases with sundry local fevers, a good deal of eye work, and general surgery, with a possibility now and then of some military surgery owing to difficulties with the Kurds. Further information can be obtained from Rev. R. M. Blakiston, 7, Dean's-yard, Westminster.

THE MEDICAL DEFENCE UNION.

THE report of the Medical Defence Union for 1894, of which we have been favoured with an early copy, shows that this Union continues to grow in numbers and in usefulness. The somewhat disturbing incidents of the year which led to litigation are fully and frankly detailed in the report and in no degree lessen our sense of the efficiency of the Union for the great purposes which it was created to serve. A schedule of a few (about eighty, not itself a small number) of the cases and applications dealt with by the council in the year illustrates its great value in protecting medical men from unjust attacks, in guiding them in circumstances of perplexity, in averting lawsuits, in reporting to the medical corporations or the General Medical Council cases of unprofessional conduct, in advising in a kindly spirit members who are pursuing wrong methods of practice, in promoting prosecution in fit cases &c., in taking action where members are attacked unjustly and bringing it to a successful issue, &c. The number of members of the union advances by leaps and bounds; they have risen from 2924 in 1893 to 3358 in 1894, and the guarantee fund has increased from £4150 to £5032. All the work, including the legal expenses of the last year, has been carried out without trenching on the reserve fund. One significant remark in the report is that "blackmailing" cases become less every year, and that in every case brought before the union the prompt action of the council in directing its solicitor to accept service of the threatened writ on behalf of the member has prevented its issue and stopped further proceedings. Mr. Victor Horsley, the President, has attended forty out of forty-two meetings, and displays as much interest in them as if he were the most general and assailed practitioner in the profession. We congratulate him and his staff on the thoroughly satisfactory report of the year.

PUBLICANS AND DEAD BODIES.

A CASE of considerable importance in view of the disposal of dead bodies was heard at the county court of Birmingham on Jan. 23rd, before Mr. John Amphlett, deputy judge. The action was taken by a publican to recover £15 damages from a police sergeant for the annoyance, expense, and loss of business occasioned through the dead body of a woman being deposited in the club-room of the public-house without plaintiff's permission. It appeared that on Saturday, Aug. 8th, 1894, a woman was taken ill outside the plaintiff's house. Plaintiff took her in, gave her brandy, and sent for a medical man; the woman, however, died, and plaintiff had her decently laid out in an outhouse. A police constable was satisfied with the arrangements, but the defendant when he appeared insisted upon the body being taken into the house, and in spite of plaintiff's protest it was carried into the clubroom, where much annoyance was caused. It seems that if there is no public mortuary the responsible person is the churchwarden of the district, upon whom devolves the duty of finding a suitable and decent place for the body. Evidence was given to substantiate the claim, and a verdict for the full amount was given. The power of the police to insist upon a publican finding room for dead bodies is therefore unsupported by legal authority, an action for tresspass being the liable outcome of such decision. It also points to the desirability of properly appointed public mortuaries, a consideration for the reflection of the new county councils in the interests of the community. A popular fallacy is dispelled by this judgment and the law made clear and intelligible.

DR. JAMESON ON SOUTH AFRICA.

ON Monday evening, Jan. 28th, Dr. L. S. Jameson, C.B., Administrator of the British Chartered Company's Territories in South Africa, delivered an address before an audience of nearly 2500 people in the great hall of the Imperial Institute. H.R.H. the Prince of Wales presided, and many distinguished persons, representing art, science, the learned professions, and commerce, were present. The past, present, and future of South Africa constituted the subject of Dr. Jameson's address, and with a somewhat nervous though deliberate delivery he briefly sketched the rise and progress of our new South African territory. Starting from a period something more than 300 years ago, when some of the best families of France and Holland were compelled to emigrate and settle down on a narrow strip of land between Table Mountain and the sea, the lecturer traced the history of the colony to the time when the Cape of Good Hope was transferred to the English Crown. From that time to the present Dr. Jameson drew a brief and vivid picture, detailing our troubles with the Boers and the Zulus. In glowing colours he then put before his

audience Rhodesia as it is and its capabilities, expressing his belief that that territory has and will have the greatest effect in producing the future of South Africa—a future which he wished to interpret as the commercial union, amalgamation, and federation of the South African States. Rhodesia, the lecturer said, is a country nearly as large as Europe, a country where white men and women can live and where their children can be reared in health. In minerals and in the products of agriculture the country is rich, and railways, roads, and telegraphs are rapidly opening it up. The picture drawn by Dr. Jameson was of a land veritably flowing with milk and honey, and even if some allowance is made for his high eulogies, still what the lecturer desired to prove seems undeniable—namely, that in our African territory there we have magnificent accommodation for our overflow population.

THE BRITISH INSTITUTE OF PREVENTIVE MEDICINE.

WE publish this week the report of the Director of the British Institute of Preventive Medicine. In this is included the reports of the medical superintendents of certain of the fever hospitals under the management of the Metropolitan Asylums Board upon the results of the antitoxin treatment of diphtheria at their several institutions. We have from the beginning felt that so important a departure in treatment, with such high claims and excellent introductions, ought not to be judged lightly or speedily, and that all judgment should be based upon clinical records of series of cases undertaken under special and highly tested conditions. The reporting of isolated cases can, we consider, only be useful when such cases are properly collated for purposes of comparison, and when all the data necessary for making fair comparison are forthcoming.

PRESCRIBING CHEMISTS.

THE question whether it is not only legal but desirable that a person with no medical qualification should prescribe for a patient of whom he knows nothing was forcibly illustrated by a case which came before the St. Pancras Coroner's Court on Jan. 22nd, a brief account of which we give as reported by the *Times*. James Jefferies, aged fifty-eight years, having complained of severe internal pain, his daughter-in-law went to a chemist's and brought back an eight-ounce bottle labeled "The mixture; one tablespoonful to be taken every hour if needful.—J. B. Johnston, 218, Kentish-town-road." The sufferer took a dose at once and was relieved, but at 3 A.M., being again in pain, he took another dose and died. Dr. Sanctuary stated that on making a post-mortem examination he found a large aortic aneurysm which had caused death by pressure on the trachea. In this particular case the action of the chemist probably in no way accelerated the patient's death; but the difficulty of the responsibility of the unqualified prescriber still remains. The poorer classes make no distinction between a "doctor" and a "chemist." They are both people from whom you can get "a bottle" at eighteenpence or a "pink powder" for twopence. To be perfectly just to an intelligent and upright body of men, it is fair to say that deaths can but rarely be traced to the action of any drug supplied by a chemist. The danger lies in the disease not being recognised, and as long as those responsible for the sick are content to seek the services of an unqualified authority, we fail to see how the law can protect them against themselves except by making it illegal for any chemist to supply any remedy without the authorisation of a duly qualified practitioner. Questioned as to whether the medicine the man had taken had anything to do with the death, the witness replied that he could not say, but that no medical man would have prescribed such a mixture for a patient suffering from disease of the heart and kidneys, as was the deceased. The chemist here remarked that the mixture contained a small quanity of chlorodyne and sal volatile. On the coroner calling his attention to the fact that he had offended against the Pharmaceutical Act the following conversation ensued:—

"The Chemist: It is a difficult thing to be a chemist at the present day. All chemists ought to be doctors, it seems to me. You have to say how people are to take their breakfasts, dinners, teas, and suppers, and how to use every half-pennyworth of stuff you sell.—The Coroner: But you know that by prescribing poisons you are committing an illegal act, for which you can be punished, and it is my duty to tell you so. I know your difficulties, and no doubt you think it hard that when a person comes to you late at night you are not allowed to serve him, but I must tell you that you run a great risk if you prescribe poisons.—The Chemist: I do not prescribe for people as a rule, and it is impossible for a chemist to say whether a person is suffering from heart disease.—The Coroner: But chemists must not act in the dark. You know it is beyond the province of a chemist to prescribe poisons.—The Chemist: Then medical men should not do their own dispensing. It seems an anomaly, because the Government allows me to sell as much chlorodyne as I like provided the bottle bears a stamp."

THE PROHIBITIVE PRICE OF ABSOLUTE ALCOHOL.

THERE are few agents at the present time which play a more important or useful *rôle* in practical scientific operations than absolute alcohol. Indeed, its use is indispensable in the prosecution of chemical, bacteriological, and physiological researches, to say nothing of the necessity of its employment in the preparation of the fluids used in serotherapeutics. Yet all who are actively concerned in these important lines of research are severely handicapped because of its excessive price, very nearly the whole of which accrues to the Excise. On the Continent the retail price of absolute alcohol is considerably less than that charged in this country, and there is little doubt that this is one of the sources of the increased facilities in research work which obtain there; at any rate, its cost here militates against such progressive work. Surely in the interests of science and progress the authorities could be induced to grant a special concession in this matter to *bonâ-fide* research workers and to those engaged in unravelling the mysteries of disease. Why should not a memorial be drawn up and signed by influential members of the various scientific societies and presented in the proper quarter? We feel sure that our remarks will appeal to the majority of the members of the scientific professions.

THE DIFFUSION OF SMALL-POX.

THE number of fresh cases of small-pox notified in London last week was 7 and the admissions to the institutions of the Metropolitan Asylums Board 8, against 8, 8, and 6 respectively in the preceding three weeks. The end of the week found 35 patients in hospital, an increase of 3 on the previous Saturday. The disease does not obtain any great hold on the metropolis, nor is it completely shaken off. Mr. Wynter Blyth relates small-pox has been successfully combated under inauspicious circumstances in Marylebone last month. Four virulent cases were removed from premises the ground-floor of which was used as a small general shop. Prompt removal of the patients and closure of the shop under payment made to the tradesman have resulted in staying the disease. This instance is in striking contrast to the case which led to such disaster a few months ago in the same parish. In the provinces the news is generally of a reassuring nature. We are glad to see that despite its two registered deaths Birmingham had only some half-dozen fresh attacks; whilst Liverpool with the same number of deaths registered had only some dozen cases coming newly to light. Lancashire was otherwise fairly free

from the disease. In Edinburgh, in the third week of January, 7 cases of small-pox were reported and 2 deaths were registered; whilst in Dublin in the same period the admissions to hospital were 61, as compared with 32 71, and 78 in the preceding three weeks, the last number having been erroneously stated in the weekly return as 88, and the corresponding number of patients under treatment having been stated to be 10 in excess of the actual number. Of the 10 deaths registered in Dublin in the week in question 5 were of vaccinated persons—1 an infant nine days of age, and the rest adults—and 4 of unvaccinated adults, the facts as to the remaining fatal case not being known. On the morning of Sunday, Jan. 20th, 310 patients were in hospital (of whom 134 were convalescents at Kilmainham), a fall from 335 a week earlier. The disease seems to be spreading in Ireland, news coming of its presence at Newry, Longford, Drogheda, Geray, and other places.

MEDICAL EVIDENCE AT INQUESTS.

ON Jan. 11th a man shot himself through the head with a revolver in the kitchen of his house in Wigan. He had returned home on that day, after an absence of some months, only half an hour before committing the fatal act. A medical man who was summoned and who arrived probably within thirty minutes of the shot being fired, found that he was already dead and that there were, in fact, signs of rigor mortis of the muscles of the jaw. The only wound was situated two inches behind the right ear and two inches below the parietal eminence. At the inquest, which was held on Jan. 14th, this gentleman was not called on to give evidence. Our ordinary sense of the fitness of things requires that a medical man should be referred to in cases involving injury or death, yet in this instance the coroner took upon himself to have the lesions described by a police constable. The family medical attendant was present and deposed to the deceased having had delirium tremens last year. It is unquestionable that the condition and surroundings of the deceased ought to have been described to the Court by the medical man who noted them shortly after the tragic occurrence.

A LEAD PENCIL IMPACTED IN THE AXILLA MISTAKEN FOR FRACTURE OF THE CLAVICLE

DR. SINCLAIR TONSEY in the *New York Medical Journal* describes the removal of a lead pencil four inches long which had been mistaken for six weeks for a necrotic fragment of the clavicle. The patient came to hospital (Roosevelt) presenting a sinus in the axilla and one below the middle of the clavicle, while a probe introduced into either sinus encountered a hard rough surface suggestive of necrosed bone. He stated that six weeks previously he had fallen and hurt his shoulder very badly, and that he had been attended immediately by two physicians, who said that his collar-bone was broken and applied suitable bandages. In the course of the next four weeks a very large swelling formed below the clavicle and another in the axilla. After examinations at a number of hospitals he was admitted as a ward patient in one of the largest hospitals in New York. There the two abscesses were incised, but it was decided not to attempt to remove the necrotic fragment until a later date. Ten days afterwards he was brought to the Roosevelt Hospital for treatment. Dr. Tonsey found that the hard fragment was freely movable when pushed upon by the probe, and also that pressure in the axilla was transmitted to the hard fragment below the clavicle. It was then perfectly clear that some kind of a spike had been driven into the axilla and had broken off, after penetrating so far that its point could be felt below the middle of the clavicle. The sinus below the clavicle was enlarged and the lead pencil withdrawn, to the astonishment of the patient and his friends. The entrance of the pencil is easily explained; the boy had climbed a lamp post to light his bicycle lamp, and his feet slipped off the ornamental ledge which passes horizontally around the post about four feet from the ground. As he fell a lead pencil in his waistcoat pocket caught on this ledge and was driven into the axilla and broken off out of sight.

THE LINK SHELL TRUSS.

WE have again to warn our readers that advertisements in respect of this truss are being issued in which, as we said in our notice on Nov. 24th, 1894, our comments have been incorrectly quoted, and additions made thereto not warranted by those comments. We also call attention to the letter of apology from the maker of the truss printed by us on Nov. 24th, 1894. We cannot sufficiently express our indignation at the use made of our comments.

ENGLISH AND AMERICAN LIFE ASSURANCE.

AN interesting paper on Some Points of Difference between Life Assurance Medicine in America and in England was read before the Life Assurance Medical Officers' Association on Wednesday last by Dr. Glover Lyon. The paper was based upon a visit to New York, and brought out in strong contrast the various points wherein the methods of American life assurance offices differ from ours. One of the most striking features of life assurance in America is its colossal size: in the case of some offices nearly 500 medical reports are made every day. Speculation is an element less common in England than in America, and fraudulent attempts to obtain policies on bad lives are also more common in the less limited West. And not only does the material differ, but the method employed regarding the selection of lives widely differs in the two countries. The medical directors in America are usually dependent, or almost entirely dependent, upon their salaries, and they cannot be directors of more than one company. Thus they are at the mercy of the executive for their livelihood, and their opinion is not, as in England, unfettered. Large salaries are offered by American offices to encourage attention to special points in life assurance; but the medical officer has not the same facilities for keeping in touch with his profession as his English brother, who invariably combines with his official duties the labours of a private practice. In America, again, policies are more readily granted than in England, litigation frequently follows, and sometimes ends in the discomfiture of the medical officer who recommended the acceptance of the risk. The gist of Dr. Glover Lyon's interesting paper was to show that on the whole the methods adopted in England compare favourably with those in America; but, as a rebuff to any patriotic "swagger" on our behalf, he urged strongly that something should be done by our medical officers to make the forms in general use in the various offices more uniform.

AT the last preliminary meeting of the University Court of the University of Wales, held at Shrewsbury on Jan. 25th, Lord Aberdare was unanimously elected, subject to the approval of the Crown, the first Chancellor of the University. Dr. Isambard Owen was elected Senior Deputy Chancellor and Mr. A. C. Humphreys-Owen, M.P., Junior Deputy Chancellor.

DR. JOHN FRASER, Deputy Commissioner in Lunacy for Scotland, has been appointed a Commissioner in the room of Sir Arthur Mitchell, K.C.B., whose retirement we recently notified; and Dr. John Francis Sutherland, medical officer to Glasgow prison, has been appointed Deputy Commissioner in the room of Dr. John Fraser.

THE next meeting, on Tuesday, Feb. 5th, of the Pathological Society of London will be devoted to a discussion upon Pneumococci, with relation especially to Immunity. Dr. Washbourn will open the discussion; Dr. A. E. Wright will contribute some notes on the bacteriology and pathological chemistry of pneumonia; and several members have already promised to take part in the debate. A series of microscopical slides of the various appearances of pneumococci, under different conditions, will be shown.

THE degree of Doctor of Medicine in the University of Oxford was conferred on Tuesday last, by decree of Convocation, upon Professor J. S. Burdon Sanderson, F.R.S., Regius Professor of Medicine in the University of Oxford. On the same day Dr. T. Clifford Allbutt, F.R.S., Professor of Medicine in the University of Cambridge, was elected a member of the General Board of Studies in that University.

THE Duke of Cambridge will preside at the Biennial Festival of the National Hospital for the Paralysed and Epileptic, Queen-square, to take place at the Hôtel Métropole, on April 2nd.

WE may again remind our readers that the Hunterian Oration at the Royal College of Surgeons of England will be delivered on Feb. 14th, at the College, by the President, Mr. J. W. Hulke, F.R.S.

THE library of the Royal College of Surgeons of England will be closed on Feb. 13th, 14th, and 15th on account of the Hunterian Festival.

NEXT Friday evening, Feb. 8th, an address will be delivered at the Royal Institution by Dr. G. Sims Woodhead on the Antitoxin Serum Treatment of Diphtheria.

THE Royal Commission on the opium question began its final sittings on Wednesday, Jan. 23rd.

BRITISH INSTITUTE OF PREVENTIVE MEDICINE.

THE REPORT OF THE DIRECTOR.

DURING the last three months the preparation of horses for the "antitoxic" serum has been proceeded with. Twenty-one horses are now under treatment, and all of them, three excepted, are now ready for bleeding. Their serum is of such strength that 0·0001 c.c. mixed with a quantity of toxine fatal to a guinea-pig in twenty-four hours will prevent the occurrence of any symptoms. Dr. Bertram Hunt has now taken charge of the diphtheria cultures and the preparation of the serum, and the laboratory at the Institute's farm is now ready and in working order. The greatest difficulty we have had to contend with was the obtaining of an absolutely aseptic serum. During the necessary manipulations it is almost impossible not to expose the serum for a short time to unfiltered air. In order to avoid all risks a special room is now being fitted up at the farm, which will be specially devoted to all the necessary manipulations. Experiments on the concentration of the curative substance in the serum have been in progress. Mr. Nolan and I have been able to concentrate the serum to perfect dryness without its losing any of its properties. The dried serum can then be re-dissolved in a very small quantity of distilled and sterilised water. We are also at work on the isolation of the curative substance.

The Metropolitan Asylums Board have been using the serum in the hospitals under their control. The results have been satisfactory.

Thus Dr. Matthews, medical superintendent of the Fountain Hospital, Grove-road, Lower Tooting, S.W., writes:—

"1. Cases of diphtheria admitted during October and November, 1894, *not* treated by antitoxin: Number of cases, 123; number of deaths 38; mortality per cent., 30·8.

"2. Cases treated during December–January with antitoxin: Number of cases, 61; number of deaths, 10; mortality per cent., 16·3.

"In these 61 cases all clinically diphtheria, diphtheria bacilli were found in 55; the 10 deaths occurred out of this number, giving therefore a death-rate of 18·1 per cent. in cases where bacteriological confirmation was present. But for the purpose of comparison the clinical and not the bacteriological diagnosis must be taken, inasmuch as the latter method was not used in the first group of 123 cases. The mortality amongst the cases treated with antitoxin shows a very striking reduction and has produced a strong impression in its favour upon my mind. Its ultimate value has doubtless yet to be fixed, but I feel no doubt that in it we possess an agent of great value in the treatment of diphtheria. With regard to after-effects, rashes with pyrexia were observed in some cases, but no serious or lasting ill-effects. The patients to whom the treatment was applied, were almost exclusively children of ten years and under. But this limitation would not have been made had our supply of antitoxin been sufficient for patients of all ages. In thanking you for your great courtesy in supplying me with material, I beg to express my sense of the services rendered to the cause of suffering humanity in this country by the enterprise of the British Institute of Preventive Medicine."

Dr. MacCombie, medical superintendent of the South-Eastern Fever Hospital, Hatfield-street, New Cross, S.E., states that

"Since November last, when he first began to treat diphtheria cases by antitoxin serum, 102 cases of diphtheria have been admitted and 51 have died; calculated on admissions and deaths, the mortality amounts to 14·7 per cent. From Jan. 1st, 1894, to Nov. 28th, 1894, his average diphtheria mortality was 25·6 per cent. It varied in different months, the highest being 38 per cent., and the lowest 23·0 per cent. in August. Dr. MacCombie does not feel justified in expressing an opinion as to the value of the treatment, but he is favourably impressed with its apparently beneficial action in cases in which the treatment begins before the fourth day of illness. He also draws attention to the unpleasant effects which, in his opinion, sometimes accompany the use of the remedy."

Dr. Gayton, medical superintendent of the North-Western Fever Hospital, Haverstock-hill, N.W.,

"Has treated 43 cases in which the presence of the diphtheria bacillus had been demonstrated; 2 died—mortality 4·6 per cent. Of these cases 1 was under one year of age, 22 were from one to five years old, 11 were from five to ten years old, and 9 were ten years old or upwards."[1]

Dr. Caiger, the medical superintendent of the South-Western Fever Hospital, Stockwell, S.W., writes as follows:

"Owing to the facilities which you have been good enough to provide, I have been enabled to treat all severe cases of diphtheria admitted into this hospital with antitoxin for the past two months. I am pleased to be able to state my conviction that its use has been attended with most satisfactory results — results which my experience justifies me in asserting could not have been expected with previous methods of treatment. Not only does the reduction in mortality imply the saving of a considerable number of lives, but the treatment, if commenced at a sufficiently early date, is successful in warding off the necessity for tracheotomy, and thus, by averting suffocation, effects a reduction of the pain and terrors of a most distressing disease; while the painlessness of the treatment and the absence of any serious after-effects is to my mind as striking as the success of the remedy itself. Although, to ensure a favourable result in grave attacks of the disease, it is of the first importance that the patient should be brought under treatment at an early date, if possible not later than the third day, in a certain number of cases the most marked benefit has followed when the inoculations have not been commenced until two or three days later. It is my intention, when the number of serum-treated cases has become somewhat larger, to bring the results obtained at this hospital before the medical profession, and I desire to express my indebtedness to the Council for affording me the opportunity of using the serum at such an early date."

Mr. Bruce, medical superintendent of the Western Fever Hospital, Fulham, S.W., writes:—

"The number of cases treated with antitoxin at this hospital is comparatively small on which to base a conclusion as to the efficacy of the remedy. The results, judged from a clinical standpoint, have, however, so far been extremely favourable—sufficiently so, I think, to justify me in expressing a very high opinion of the value of the remedy in the treatment of diphtheria. The statistical evidence furnished herewith points to a like conclusion:—

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[1] Too much importance is not to be attached to these statistics, as Dr. Gayton informs me that out of these 43 cases, 7 only were really severe.—M. A. R.

The Cases of Diphtheria treated at the Western Fever Hospital with Antitoxin.[2]

TABLE I. (A).—*From Nov. 26th, 1894, to Jan. 25th, 1895.*

Age Periods.	Admissions.	Deaths.	Type of Disease.			Complications.	
			Severe.	Moderate.	Mild.	Rashes.	Arthritis.
0 to 5 years	40	5	15	18	7	10	1
5 to 10 years	22	5	13	7	2	6	1
10 to 15 years	4	—	2	2	—	3	2
Upwards	2	—	2	—	—	1	—
Total	68	10	32	27	9	20	4

TABLE I. (B).—*Day of Disease on Admission (according to Statement of Friends).*

Day of disease.	Number of admissions.	Number of deaths.
First day	5	—
Second day	12	1
Third day...	23	3
Fourth day	15	4
Fifth day	9	—
Later	3	2
Indefinite...	1	—
Total	68	10

TABLE II.—*Case Mortality from Diphtheria at the Western Fever Hospital.*

Year.	Admissions.	Deaths.	Percentage of Mortality.
1891	141	54	38·3
1892	247	73	31·5
1893	256	94	36·7
1894 (to Nov. 26th)	507	176	34·7
Total	1151	402	Average = 34·9.

TABLE III.—*Admissions &c. from Nov. 26th, 1893, to Jan. 25th, 1894, being the corresponding period of last year when no antitoxin was employed.*

Age Periods.	Admissions.	Deaths.	Percentage.
0 to 5 years	20	12	60
5 to 10 years	21	6	28·57
10 to 15 years	7	—	—
And upwards	10	1	10
Total	58	19	32·85

Ten of these cases were complicated by laryngitis, with six deaths. Tracheotomy was performed in five cases, with one recovery, and intubation in one case, which was fatal."

It will be seen from these reports that, whereas during the time that the antitoxin treatment was being used at Homerton the mortality in the other hospitals of the Metropolitan Asylums Board remained practically the same, the mortality in all these hospitals at once fell when the antitoxin treatment was begun in them. Dr. Gayton's mortality of 4·6 per cent. in 43 cases of diphtheria in which the diagnosis had been established by bacteriological examination is, as far as I know, the lowest mortality on record.

M. ARMAND RUFFER, Director.

ABSTRACT OF REPORT OF BACTERIOLOGICAL DEPARTMENT BY DR. ALLAN MACFADYEN.

During the past year there were twenty-five workers in the laboratories. Amongst the students were medical men from Russia, Africa, India, Australia, New Zealand, and Canada.

[2] In all these cases the diagnosis was confirmed by bacteriological examination. Four are still in a critical condition.

The numbers have increased this year, there being at the present moment twenty students at work. An evening-class in bacteriology has been started and is well attended. The increase in work has necessitated the appointment of an assistant bacteriologist. Dr. R. T. Hewlett has already entered on the duties of the post.

A gratifying feature is the increase in the number of those engaged in original investigations. In 1894 six researches were commenced and completed. At present five gentlemen are engaged upon various investigations under the supervision of Dr. Macfadyen.

Dr. Hewlett is continuing the preparation of the tetanus antitoxin and is assisting Dr. Macfadyen in his investigations.

Dr. Macfadyen has, with the assistance of Dr. Hewlett, prepared mallein and tuberculin. These substances will be immediately tested upon animals, and there will soon be an adequate supply for the use of members of the veterinary profession.

The preparation of the toxines of erysipelas has also been undertaken. When ready the action of these toxines will be tested in cases of sarcoma.

An inquiry is being made for the county council of Derbyshire with regard to a supposed outbreak of hydrophobia.

Mr. Barnard has undertaken to give instruction in microphotography to the students in the laboratory, and it is believed that this will prove a valuable addition to the teaching resources.

ADDENDUM.

The following arrangements have been made with regard to the sale of the curative serum for diphtheria and tetanus and the bacteriological examination of cases of diphtheria or suspected diphtheria.

1. The serum may be obtained by any registered medical practitioner on application to the Director of the Institute, 101, Great Russell-street, London, W.C., or to Messrs. Allen and Hanburys, Plough-court, Lombard-street, London, E.C.

2. The price of the serum is fixed for the present at 1*s.* 6*d.* for 30 c.c., but it is to be distinctly understood that the serum is for the use of the United Kingdom and Colonies only. Under no circumstances whatever is it to be sent to other countries.

3. In order to facilitate the bacteriological examination of suspected case of diphtheria, a special sterilised box for the transmission of membrane will be sent to any medical man on receipt of one shilling in stamps. The fee for examination of the membrane will be 2*s.* 6*d.* Several cases having occurred in which apparently virulent bacilli have been found in patients who were to all appearances perfectly recovered from an attack of diphtheria, whenever the bacillus has been isolated, the examination will be repeated every fortnight without extra charge until the patient has been found to be free from diphtheria bacilli.

4. The institute possess a horse immunised against tetanus and are ready to supply a certain amount of tetanus antitoxin. The price of this will be 2*s.* 6*d.* for 1 gramme of dried serum, or 2*s.* for 10 c.c. of liquid serum. The supply is limited to the United Kingdom and the colonies, and none is to be sent to foreign countries under any circumstances whatever.

SMALL-POX IN DERBYSHIRE IN 1893.

DR. SIDNEY BARWISE, the medical officer of Derbyshire, has in his report on the county for 1893 brought out with admirable clearness the relations which small-pox bore in the county during that year to the vaccinated and unvaccinated communities which were invaded by the disease. As many as 1049 cases came to the knowledge of the local health officers in the administrative county, with ninety-three deaths, the disease having been largely spread by the agency of navvies working on the Dore and Chinley railway. Overcrowding prevailed, and the men wore each other's "overalls" while working, added to which they worked in night and day shifts after sleeping in the same beds. But what was even worse was the deplorable absence of hospital accommodation, temporary erections being in some instances prepared with all practicable speed, though, after all was done, only one-half of the total cases were isolated. And it was not for the want of money, since Dr. Barwise computes as a low figure the expenditure of £10,000 on the 1000 attacks in one and another way, such as loss of wages, isolation provision, and

the like. But, as he remarks, one cannot tell where the cost of an epidemic will end, the poor-rates often being saddled for years with the relief of the dependants of sufferers. Chesterfield with its ninety-six cases might have been freed from more than 80 per cent. of them had hospital accommodation been in actual readiness for the first cases. Other districts suffering heavy invasion were Newbold and Dunston, 176 cases; Chesterfield rural, 178 cases; and Ecclesall Bierlow rural, 222 cases. On the matter of influence of vaccination on the outbreak, Dr. Barwise is able to give data of his own as regards Whittington with its 135 cases and thirteen deaths down to March, 1894. Of 159 vaccinated persons in infected dwellings, aged under ten years, 6·9 per cent. were attacked and none died; of twenty-one unvaccinated in the same case and of similar ages, 71·4 were attacked and 23·8 per cent. died. In the two classes in the same order at ages over ten years the attack-rates were 35 and 100 per cent.; whilst the death-rates were 2·3 and 25 per cent. of the 300 and the four persons exposed to infection. True, the figures on which the results are based are small, but the rates are very startling, showing in an unmistakable manner the great need for vaccination, and equally for revaccination, looking to the almost complete immunity from attack of children once vaccinated and the complete immunity of those attacked from fatal illness. In the whole administrative county the deaths from small-pox were 8·9 per cent. of cases, and of 499 attacks concerning which the facts are known as to vaccination the per case mortality was 8·6 per cent., made up of 3·9 in the vaccinated and of 25 in the unvaccinated. Another point of interest is that 40 per cent. of the small-pox deaths were in children under five years of age, a figure which would seem to be taking us back to the early years of the century, when it was 90 per cent. of the total small-pox deaths. We must go back to a quinquennial period prior to the seventies for such a rate in England. The Derbyshire rate on children under five years of age in 1893 was twice that of England five years previously. Dr. Barwise sees in these data the result of the terrible laxity growing up over the county—and we may say country—in the matter of enforcement of the vaccination laws, and the figures certainly afford food for reflection on the part of professional agitators and of our legislators. We also commend them to the notice of the Vaccination Commission. Space does not enable us to dwell further on the point here, or to quote the interesting cases of malignancy of infection and of the protecting influence of vaccination to which Dr. Barwise refers. Such a report as this makes us wish that the printed reports of health officers were commonly available for the reading public, as by purchase or in other ways.

OYSTERS AND TYPHOID FEVER.

MUCH has appeared and is appearing in the daily press upon the subject of the possible communication of disease as a result of the consumption of oysters in a raw state. The President of the Local Government Board has instituted an inquiry into the circumstances under which the cultivation and storage of the bivalvular mollusc and other shell-fish around the coast are carried out as the result of a report from Dr. Thorne Thorne, the medical officer of the Board. The following is the report of a bacteriological investigation of water from an oyster bed and of oysters from the same source, made by Professor Crookshank, M.B., Director of the Bacteriological Laboratory, King's College, London:—

"This investigation was made at the request of Dr. Fuller of New Shoreham. The first sample of water, despatched by Dr. Fuller on Dec. 17th, consisted of sea water with a thick deposit of mud at the bottom of the vessel. The water and the deposit were separately examined. Experiments were made by special methods for detecting the presence of the bacillus of typhoid fever. The results were negative. Further experiments were made in order to isolate other bacteria present in the water and in the deposit, and to examine their exact nature. The colonies which developed in plate-cultivations were very numerous, and it was necessary to obtain a fresh sample of water and to repeat the experiments in order to obtain complete isolation of the individual colonies and to establish pure-cultivations of each species. The results obtained with the second sample will be referred to directly. There was no septic odour in the plate-cultivations obtained from the first sample of water. The muddy sediment was examined by similar methods. There were no typhoid fever bacilli present, and the micro-organisms which were isolated and examined, both microscopically and in pure-cultures, were found to be well-known harmless bacteria. The majority of these colonies were the result of the multiplication of a harmless liquefying bacterium. On Dec. 20th three oysters were despatched by Dr. Fuller. The liquid of the oyster was mixed with liquefied gelatine and several plate-cultivations made. The number of colonies which developed was surprisingly small. The colonies were found to represent only five different species of bacteria. All of these were studied in the form of pure-cultivations, and were easily recognised as familiar and harmless species. The marked difference in the number of bacteria in the liquid of the oyster and in the water of the oyster bed suggests an interesting line of inquiry. The second sample of water, despatched on Jan. 11th, was so treated that the individual colonies would be completely separated even if the bacteria were found to be present in very considerable numbers. Nine separate experiments were made, and the average number of colonies which developed amounted to 50,000 in a cubic centimetre. The colonies consisted very largely of a non-liquefying and a liquefying bacterium. Other species were similarly isolated and studied in their microscopical and biological characters, and all were recognised as well known and harmless bacteria. There was no septic odour from the cultivations, and, in fact, the complete absence of foul-smelling or saprogenic bacteria was very striking; and in none of these experiments was the typhoid fever bacillus present. The number of bacteria, however, calls for some comment. The colonies were far in excess of those found in pure sea water, and a similar number, if found in drinking water, would raise a suspicion of sewage contamination unless a very considerable interval had elapsed between the time of taking the sample and its subsequent examination. The question therefore arises whether the excessive number of colonies in this particular sample of sea water indicates sewage contamination or is due to a want of cleanliness in the oyster bed and the presence of organic matter from other causes than sewage. The absence of septic and foul-smelling micro-organisms points to absence of sewage, unless sea water has a special action upon those micro-organisms which we expect to find wherever there is unquestionably mixture with sewage. The question of the presence or absence of such contamination can, however, be ascertained by further investigation and by local inquiry. The question which I have been asked is whether oysters from this particular bed are likely to be injurious to the consumer. From the bacteriological investigation of the samples of water and of oysters submitted for examination I am of opinion that there is no evidence, from the bacteriological examination, which would lead me to condemn the oysters as dangerous or unfit for food. I am led to this conclusion by the absence of typhoid fever bacilli and by the absence of any septic micro-organisms, and by the fact that all the micro-organisms which I succeeded in isolating were perfectly harmless species. I would venture to add, however, that more than a bacteriological investigation is required to relieve public anxiety upon the question of a possible danger arising from the consumption of uncooked oysters. The possibility of a constant or intermittent contamination of the oyster beds by sewage ought to be carefully inquired into. Any local evidence which justifies a suspicion of typhoid fever resulting from the consumption of oysters from a particular oyster bed ought to be carefully followed up. I am of opinion that the danger of the contamination of oysters with the specific cause of typhoid fever has been exaggerated, but I am equally convinced that it is quite possible that just as unboiled milk mixed with typhoid-infected water may distribute typhoid fever among the consumers, so also the liquid of uncooked oysters may be the means of conveying typhoid fever if water infected with typhoid fever is imprisoned between the valves of the oyster. The oyster may thus be the means of mechanically transferring typhoid bacilli to the mouth of the consumer, and the question then arises whether the bacillus has been derived from the sewage-fed oyster bed or from typhoid-infected water in the establishments in which the oysters are retailed. Here there is need for further and careful inquiry. Have there been groups of cases of typhoid fever traced to oysters distributed from some

particular oyster bed, or have the cases been traced to any particular establishment or retail shop, so that suspicion may rest equally upon the water at the place of distribution to the consumer and upon the water of the oyster bed? I do not believe that either the cow or the oyster can elaborate typhoid fever from sewage, but it is quite possible that oysters may mechanically convey typhoid fever, just as milk mixed with infected water may be the medium for distributing this disease. In both cases it is more than probable that the danger is much exaggerated."

DINNER TO DR. JAMESON, C.B.

IT was a happy thought which impelled some of the fellow-students of Dr. Leander Starr Jameson at University College to arrange for a dinner to him at which he would meet those amongst whom he worked in college and hospital, where for two years he held the position of resident medical officer. The dinner took place at the Whitehall Rooms on Thursday, Jan. 24th, and passed off with great *éclat*. The chair was occupied by Mr. Christopher Heath, senior surgeon to University College Hospital, having on his right the guest of the evening. Upwards of 120 sat down, many having come from long distances to be present on the occasion. Amongst those present were Sir J. Russell Reynolds, F.R.S., Sir J. E. Erichsen, F.R.S., Sir John Williams, Dr. Bastian, F.R.S., Dr. Gowers, F.R.S., Dr. F. T. Roberts, Dr. Poore, Mr. Tweedy, Mr. Bilton Pollard, Mr. S. J. Hutchinson, Dr. Bradford, F.R.S., Dr. Sidney Martin, Dr. Radcliffe Crocker, Dr. Corfield, Mr. Meredith, Mr. Quarry Silcock, Mr. A. J. Pepper, Dr. Dawson Williams, Dr. Sidney Coupland, Mr. Pearce Gould, Mr. Stanley Boyd, Mr. Buckston Browne, Dr. Campbell Pope, Dr. B. H. Allen (Hastings), Dr. Colgate (Eastbourne), and Mr. Farrell (Eastbourne). After the toast of the Queen had been duly honoured the Chairman in a brief speech proposed the health of Dr. Jameson, which was enthusiastically received.

Dr. JAMESON: Mr. Chairman and Gentlemen,—I thank you most heartily for this more than kind reception to-night. I need not say how gratifying it is to me that any work of mine should be considered worthy of such recognition from you, many of whom have been intimately associated with me during my early career. I need not say how honoured I feel at the presence here to-night, on my right hand and on my left, of those professors and teachers who, in my time as a student, more than twenty years ago, were even then the leading men at University College, then, and I believe still, one of the leading schools of medicine in the kingdom. It is a special gratification to me to have the honour of the presence of two of my old teachers who have been lately recognised by the Queen as leaders of the profession by special distinction of title. Gentlemen, it is more than seven years ago since I practically left the profession. I assure you it has often been to me, for many reasons, a regret that I have done so, and I shall always continue to feel a sense of regret. Yet it seems to me that I have rather drifted out of it than that I have deliberately left it. During the first year of the new work to which I turned I sometimes thought of going back to medical practice, but I soon found that the profession had also drifted away from me. Indeed, I began to wonder whether, in the first instance, it had not drifted away from me rather than I from it. I soon saw, from the rapid manner in which medical science was advancing, that if I attempted to resume it I should have to go to school again to become competent to treat patients. I felt that I should not have energy enough for that. Hence, by a natural consequence, as my work increased and my sphere became larger and of greater importance, my own interest in it increased also. So my old profession and I got further apart. I have gradually drifted from the medical man into the administrator, and yet, perhaps, after all it is more correct to say that the one has become merged into the other. I have always recognised that any capability I may have shown for my present work has been due in great measure to the experience I gained in the several resident posts I held in University College Hospital, and especially to the influence of the last two years, when in the time of some of the professors here to-night I held the much-coveted post of Resident Medical Officer. In those two years I learnt what I consider are the main elements of success for anyone who attempts to govern or to administer. They are these two principles—first, never to promise anything you cannot undertake; secondly, to believe that one's own opinion is not the only opinion in the world, but that other people are worth listening to, and other opinions are worth considering. If these two principles are recognised in action, if they are thoroughly acted up to, I believe it will be found to be good for those who govern, good for the man who governs, and good for those to whom the administrator is responsible. I have thus to thank University College and University College Hospital for the groundwork of any success I may have had in my different sphere of work. I have also to thank University College Hospital for the memory of what I may truly say were the best years of my life. I remember the days when I secured a dressership under Mr. Erichsen, and only two days ago I met in the train my former house surgeon, Mr. Buckston Browne. I wish, gentlemen, that I could go through those days again. Later on I was fortunate enough to secure the post of house physician in the hospital to Dr. Russell Reynolds, and still later a house surgeoncy to Mr. Marshall, when I had the supreme pleasure of beating my friend, Mr. Pepper. I can assure you that when I obtained this post I felt more gratification and was more proud of myself than I was last year when I arrived at Buluwayo. Although I had gone through a considerable amount of disagreeable work, and although the anxiety which preceded the success was very great, I think the examination for that house surgeoncy, and especially the horrible *viva-voce* part of it, gave me more anxiety than I experienced in all that campaign. Now, gentlemen, I will not trouble you with a digest of the downfall of Buluwayo or even of an outline of our Company's proceedings; but our Chairman mentioned the subject of what he was kind enough to call the "libel" on myself during our operations. If you will allow me, I should like to say a few words for myself on that subject. Our Chairman also said that this was not a political meeting; I hope sincerely that it is not. But when a friend of mine—one of our secretaries—this evening told me that you intended to give me a dinner, I felt that I did wish one thing. Whatever the country may think of the methods of our procedure in Matabeleland, I am anxious that the members of the profession to which I have the honour to belong should understand the origin of what took place. I myself, previous to our troubles last year, always hoped that the Matabele question would be settled without having recourse to force. I knew that Lobengula had always said he would never fight with the "white men," and I believed that he had absolute control over his Indunas. I, therefore, believed that we should come through all our difficulties without any conflict. I was egotistical enough to think that had I been at Pretoria when the trouble began I should have been able to stave off any conflict; but I was 200 miles away, and I will give you as short an account as I can of what happened. When I arrived I found on both sides of the road the Matabeles carrying off their goods in preparation for a fight; but a year before the same thing had happened, and I then took up a firm position and settled matters. I thought I might do the same thing again. It turned out that I was wrong. Only two things were possible—either 2000 people, including every white man, would have lost their all, and there would have been such a butchery of Mashonas as had never been heard of before, or we must use force—we must go to Buluwayo. When the war was over, after the settlement, I went over the whole of the facts, and heard the same account from everyone. I found I was right in regard to the king—he never wanted to fight; but I was wrong with regard to the natives. They had entirely the upper hand of the king. There were only two people who did not want to fight—one was the king, the other was one of the Indunas who had been over here. I wish you to know to-night that we adopted the only possible method we could adopt. We were driven into the campaign, and during the three preceding years we had done everything we possibly could to avoid such a thing as a conflict. No one could be more ready than I am to condemn any attempt to bring on a war with these unfortunate races. I have troubled you enough. I can only thank you most heartily for the extremely kind welcome you have given me.

Dr. Jameson concluded by proposing the health of the Chairman, which was most cordially received.

The toast of the Secretaries, Dr. Radcliffe Crocker and Mr. Quarry Silcock, to whom the success of the gathering was

largely owing, was also received with heartiness, and the proceedings, which had been enlivened by songs and recitations by Dr. Roberts, Dr. Campbell Pope, and other visitors, came to a close. It was generally agreed that a more pleasant reunion had seldom been held, an opinion enhanced by the fact that in the case of many of those present twenty years had elapsed since they were fellow-students together.

THE REGISTRAR-GENERAL'S ANNUAL REPORT FOR 1893.

THE Registrar-General for England and Wales has just issued his fifty-sixth annual report, dealing with the vital statistics for the year 1893. The marriages in the year were equal to 14·7 persons married to 1000 persons estimated to be living in the middle of the year; this rate showed a further decline from the rates in recent years, and was lower than the rate in any year since 1838, when it was 14·4. This decline in the marriage rate was coincident with a further decline in the ratio of British exports to the population. The birth-rate was equal to 30·8 per 1000, which, although showing a fractional increase upon the rate in 1893, was 1·1 per 1000 below the mean rate in the ten years 1883–92. The proportion of births born out of wedlock, which has shown a fairly steady decline in a long series of years, was equal to 4·2 per cent. in 1893, and corresponded with the proportion in each of the two preceding years.

The meteorological conditions of 1893 were very exceptional. The mean temperature of the air was considerably above the average, the mean for each month from February to October inclusive showing an excess which was relatively largest in March, April, May, and August. The rainfall was only 20·1 in., and was 4·2 in. below the average, the greatest deficiency occurring in the four months ending with June. Thus the mean degree of humidity of the air was exceptionally low, lower indeed than in any previous year since 1852. These meteorological conditions exercised an undoubtedly unfavourable effect upon the mortality returns for the year.

The 569,958 deaths recorded in England and Wales during 1893 were equal to a rate of 19·2 per 1000 persons living. This rate showed a very slight increase upon the rate in 1892, and was identical with the mean annual rate in the ten years 1883–92. It ranged from 14·7 in Westmorland and 15·0 in Berkshire, Buckinghamshire, and Dorsetshire to 20·5 in Durham, 20·7 in Staffordshire and in the East Riding of Yorkshire, 20·8 in London, and 22·4 in Lancashire. The excess in the death-rate was mainly confined to children and young adults, while the rates among persons past middle age, on the other hand, showed a considerable decline. Infant mortality, measured by the proportion of deaths under one year of age to registered births, was equal to 159 per 1000, and exceeded the rate in any year since 1870; this excess was in great measure due to the exceptional fatality of diarrhœa. It is noteworthy that the increase of mortality in 1893 was entirely confined to town districts. The urban rate rose from 19·5 in 1892 to 20·2 per 1000, whereas the rural rate declined from 18·1 to 17·4.

The main feature of the increased mortality was the excess of deaths due to zymotic or specific febrile diseases, to which 94,126 deaths in 1893 were referred, equal to a rate of 3·2 per 1000, exceeding the rate in any of the ten preceding years, which showed a mean rate of 2·6. The mortality directly or indirectly referred to influenza showed a further considerable decline in 1893, and the death-rates from measles, scarlet fever, and whooping-cough were below the average, whereas the deaths referred to diarrhœa and diphtheria showed a large excess, and those from small-pox and enteric fever a very considerable increase. The increase in the death-rate from enteric fever was probably due in great measure to the high temperature and deficient rainfall, which undoubtedly caused the exceptional mortality from infantile diarrhœa. The death-rate from diphtheria was equal to 318 per million living, and was higher than in any previous year on record since 1859; the mean rate from this disease in the ten years 1883–92 did not exceed 175 per million. The greatest fatality from this disease occurred in the south-eastern counties, the rate in London and in nine almost contiguous counties averaging 612 per million living. The rates from measles and whooping-cough were exceptionally low. The diarrhœal death-rate was 999 per million living, against an average rate of 653 in the ten years 1883–92; the rate in 1893 has only been exceeded four times during the past twenty years. Small-pox mortality, which had been remarkably quiescent during the three years 1889–91, increased in 1892. The fatal cases of this disease were 451 in 1892, and further rose to 1457 in 1893. The deaths from puerperal fever and from the accidents of childbirth were exceptionally numerous, and the rate from these causes were higher than in any year since 1876. The proportion of deaths referred to premature birth and congenital defects, to registered births, also showed a further increase upon that recorded in recent years. No fewer than 20,076 deaths in the year were referred to different forms of violence, the rate from this class of causes somewhat exceeding the average.

Such are the main features of the detailed returns for England and Wales in 1893, the unfavourable nature of the figures being mainly due to the long drought and to the high temperature during the spring and summer. It is at any rate satisfactory to know that the increased death-rate in 1893 has been more than counterbalanced by the unprecedentally low rate in 1894, which was only 16·6 per 1000.

CORK SOCIETIES' MEDICAL OFFICERS' INDEMNITY FUND.

THE following subscriptions to this fund have been received by Mr. Denis Dempsey Donovan, hon. treasurer, 51, King-street, Cork:—

N. J. Hobart, M.D. (Cork)	£20	0	0
Professor E. R. Townsend, M.D. (Cork)	20	0	0
P. J. Cremen, M.D. (Cork)	20	0	0
Professor S. O'Sullivan, M.D., F.R.C.S.I. (Cork)	20	0	0
D. D. Donovan, M.D. (Cork)	20	0	0
Professor H. Corby, M.D. (Cork)	20	0	0
T. Gelston Atkins, M.D. (Cork)	20	0	0
J. Cotter, M.D. (Cork)	20	0	0
Professor C. Yelverton Pearson, M.D. (Cork)	20	0	0
H. R. Townsend, M.D. (Cork)	20	0	0
W. A. Cummins, M.D. (Cork)	20	0	0
E. Magner, M.D. (Cork)	20	0	0
J. Giusani, M.D. (Cork)	15	0	0
Philip Lee, M.D. (Cork)	10	0	0
T. B. Moriarty, M.D. (Cork)	10	0	0
P. J. Hayes, M.D. (Cork)	10	0	0
J. MacMahon, M.D. (Cork)	10	0	0
P. Oscar Woods, M.D. (Cork)	10	0	0
D. C. O'Connor, M.D. (Cork)	5	0	0
D. J. O'Mahony, M.D. (Cork)	£5	0	0
P. T. O'Sullivan, M.D. (Cork)	5	0	0
P. Tracey, M.D. (Cork)	5	0	0
N. H. Runciman, M.D. (Cork)	5	0	0
M. J. Murphy, M.D. (Cork)	5	0	0
R. Dalton, M.D. (Cork)	5	0	0
M. O'Connell, M.D. (Cork)	5	0	0
P. J. Daly, M.D. (Cork)	5	0	0
D. Flynn, M.D. (Cork)	5	0	0
H. Hobart, M.D. (Cork)	5	0	0
N. J. Townsend, M.D. (Cork)	5	0	0
E. Murphy, M.D. (Cork)	5	0	0
C. Roche, M.D. (Cork)	5	0	0
E. W. Allsom, M.D. (Cork)	5	0	0
T. Callaghan, M.D. (Cork)	2	2	0
M. Cahill, M.D. (Cork)	1	0	0
P. Dee, M.D. (Cork)	1	1	0
J. O'Meara, M.D. (Cork)	1	1	0
H. T. Butlin, F.R.C.S. Eng. (London)	5	0	0
W. P. Herringham, M.D. (London)	1	1	0
A. Hargreave, M.D. (Tralee)	1	1	0

It will be perceived by the communication from one of our special correspondents in Ireland that the fund has received considerable augmentation since this list was sent to us.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6849 births and 3797 deaths were registered during the week ending Jan. 26th. The annual rate of mortality in these towns, which had increased in the preceding four weeks from 18·0 to 21·7 per 1000, declined again last week to 18·7. In London the rate was 17·6 per 1000, while it averaged 19·5 in the thirty-two provincial towns. The lowest rates in these towns were 11·3 in Leicester, 13·5 in Brighton, 14·6 in West Ham, 14·7 in Bradford, and 15·0 in Croydon; the highest rates were 22·0 in Burnley, 23·1 in Manchester, 23·7 in Wolverhampton, 24·1 in Preston, and 28·0 in Liverpool. The 3797 deaths included 328 which were referred to the principal zymotic diseases, against 363 and 338 in the preceding two weeks; of these, 75 resulted from measles, 69 from whooping-cough, 56 from diphtheria, 47 from "fever" (principally enteric), 42 from diarrhœa, 35 from scarlet fever, and 4

from small-pox. No fatal case of any of these diseases occurred last week in Leicester; in the other towns they caused the lowest death-rates in Nottingham, Derby, Burnley, and Huddersfield, and the highest rates in Sheffield, Gateshead, Preston, Sunderland, and Wolverhampton. The greatest mortality from measles occurred in Portsmouth, Sheffield, Newcastle-upon-Tyne, and Gateshead; from scarlet fever in Wolverhampton; from whooping-cough in Plymouth, Wolverhampton, Oldham, Halifax, Sunderland, and Gateshead, and from "fever" in Halifax. The 56 deaths from diphtheria included 29 in London, 6 in Birmingham, and 3 in Manchester. Two fatal cases of small-pox were registered in Manchester and 2 in Liverpool, but not one in London or any other of the thirty-three large towns. There were 35 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 26th ult., against 23, 28, and 33 at the end of the preceding three weeks; 8 new cases were admitted during the week, against 8 and 6 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital, which had been 1779, 1718, and 1653 at the end of the preceding three weeks, was 1662 on Saturday last; 186 new cases were admitted during the week, against 126, 130, and 154 in the preceding three weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 319 to 399 in the preceding three weeks, declined again to 324 last week, and were 310 below the corrected average. The causes of 79, or 2·1 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Cardiff, Bradford, Sunderland, Newcastle-upon-Tyne, and in eight other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Leicester, Salford, and Blackburn.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the preceding three weeks from 21·8 to 28·3 per 1000, declined again to 24·2 during the week ending Jan. 26th, but was 5·5 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 19·2 in Leith and 19·4 in Aberdeen to 26·0 in Greenock and 27·3 in Glasgow. The 698 deaths in these towns included 42 which were referred to measles, 18 to whooping-cough, 11 to diarrhœa, 9 to scarlet fever, 5 to diphtheria, 5 to "fever," and 2 to small-pox. In all, 92 deaths resulted from these principal zymotic diseases, against 113 and 100 in the preceding two weeks. These 92 deaths were equal to an annual rate of 3·2 per 1000, which exceeded by 1·6 per 1000 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had been 58 and 45 in the preceding two weeks, further declined to 42 last week, of which 25 occurred in Glasgow, 10 in Edinburgh, and 7 in Aberdeen. The 18 deaths referred to whooping-cough were within one of the number in the preceding week, and included 13 in Glasgow. The fatal cases of scarlet fever, which had been 6 and 12 in the preceding two weeks, declined to 9 last week, and included 5 in Glasgow and 3 in Edinburgh. The deaths referred to diphtheria, which had been 14 and 9 in the preceding two weeks, further fell to 5 last week, of which 2 occurred in Glasgow and 2 in Edinburgh. Of the 5 fatal cases of "fever," 4 were recorded in Glasgow; and of the 2 deaths from small-pox, one occurred in Leith and one in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 215 and 235 in the preceding two weeks, declined to 186 last week, but exceeded by 53 the number in the corresponding period of last year. The causes of 57, or more than 8 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased from 25·4 to 40·9 per 1000 in the preceding four weeks, declined again to 31·0 during the week ending Jan. 26th. During the past four weeks of the current quarter the death-rate in the city has averaged 32·8 per 1000, against 18·6 in London and 23·9 in Edinburgh. The 208 deaths registered in Dublin during the week under notice showed a decline of 66 from the number in the previous week, and included 20 which were referred to the principal zymotic diseases, against numbers increasing from 10 to 23 in the preceding three weeks; of these, 7 resulted from small-pox, 5 from "fever" (principally enteric), 3 from diarrhœa, 2 from scarlet fever, 2 from whooping-cough, 1 from diphtheria, and not one from measles. These 20 deaths were equal to an annual rate of 3·0 per 1000, the zymotic death-rate during the same period being 1·3 in London and 3·4 in Edinburgh. The fatal cases of small-pox, which had been 11 and 10 in the preceding two weeks, further declined to 7 last week. The deaths referred to different forms of "fever," which had increased from 2 to 4 in the preceding three weeks, further rose to 5 last week. The mortality from whooping-cough and from diarrhœa showed a decline from that recorded in the preceding week, while that from scarlet fever showed an increase. The 208 deaths in Dublin last week included 30 of infants under one year of age and 72 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a decline from the exceptionally high numbers in the preceding week. Three inquest cases and 4 deaths from violence were registered; and 72, or more than a third, of the deaths occurred in public institutions. The causes of 20, or nearly 10 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

SURGEON-CAPTAIN R. H. MOORE, A.M.S., has been ordered to join at Netley for duty about the 8th proximo. Leave from Netley has been granted to Surgeon-Captain Reid from Feb. 1st to March 24th, and to Surgeon-Major Whitehead from Feb. 4th to March 5th. Surgeon-Major F. J. Jencken, M.B., has been ordered to proceed to Netley, for duty, on the 1st proximo. Surgeon-Major O'Brien and Surgeon-Captains Macleod and Wilson have embarked in the *Dilwara* for India. Surgeon-Majors Webb, Wilkinson, and Ryan, and Surgeon-Captain Clark have arrived from India in the *Britannia*.

INDIA AND THE INDIAN MEDICAL SERVICES.

Surgeon-Lieutenant-Colonel Richard Gillham Thomsett, A.M.S., has been posted to the Medical Charge of the Station Hospital, Mandalay; and Surgeon-Major William Amherst Daniel Cowen, A.M.S., has been posted to the Medical Charge of the Station Hospital at Poonamallee. The services of Surgeon-Captain Charles Duer, M.B., I.M.S. (Bengal), are replaced at the disposal of the Military Department. Brigade-Surgeon-Lieutenant-Colonel William Roe Hooper, Civil Surgeon and Superintendent of the Lunatic Asylum, Lucknow, retires from the service.

NAVAL MEDICAL SERVICES.

Fleet-Surgeon Robert Hall More, M.D., has been placed on the Retired List, with permission to assume the rank of Deputy Inspector-General of Hospitals and Fleets.

The following appointments are notified:—Staff-Surgeons: John J. Dinnis to the *Undaunted*, and R. E. Biddulph to the *Inflexible*.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant Peter M. Kerr, M.B., having resigned his Volunteer medical appointment, ceases to be an officer of the Army Medical Reserve of Officers. Surgeon-Captain Thomas McCraith Foley, 1st East Riding of Yorkshire Volunteer Artillery, to be Surgeon-Captain.

VOLUNTEER CORPS.

Rifle: 1st Volunteer Battalion, the Prince of Wales's Own (West Yorkshire Regiment): Surgeon-Major A. O. Wiley resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the Battalion on his retirement. 1st Volunteer Battalion, the Royal Sussex Regiment: Surgeon-Captain D. W. Giffard resigns his commission.

VOLUNTEER MEDICAL STAFF CORPS.

The London Companies: Herbert William George Macleod, M.B., to be Surgeon-Lieutenant.

THE WAR BETWEEN CHINA AND JAPAN.

In an article on "The War between China and Japan"

in the February issue of the *United Service Magazine*, Colonel Maurice sounds a note of warning to British residents who are still lingering in Chinese towns for fear of running the gauntlet of the disorderly soldiery marauding in the country. With half a million of men round Pekin, whose habits are filthy and who have hardly any knowledge of the meaning of the words discipline or organisation, with an absence of the faintest notion of the most ordinary military or sanitary precautions, there is every probability that a pestilence in some form or other will follow upon the melting in the spring of the snow, which has been befouled by vast numbers of men and animals. "Even as regards the march of the Japanese, in the early spring, on Pekin, I think," says the writer, "it will require all their admirable organisation, discipline, and sanitary skill to prevent the contagion reaching their army. A medical question of the greatest general interest needs to be answered. Within what time after warm, moist weather sets in ought we to expect actual illness to follow upon the hopeless sanitary neglect of vast disorderly congregations of men with many neglected animals? I think that the medical papers would do us an excellent service if they would answer it."

THE LATE CHOLERA OUTBREAK IN THE EAST LANCASHIRE REGIMENT.

It will be remembered that a very severe outbreak of cholera occurred in the East Lancashire Regiment at Lucknow last year. A committee, presided over by Surgeon-Lieutenant-Colonel Hutcheson, Sanitary Commissioner in the North-West Provinces, has recently been inquiring into the cause of the outbreak in question, and it is alleged that the propagation of the disease has been traced to have taken place through the instrumentality of the barrack-room filter. The sand used as a filtering medium had been taken from a *ghat* on the Gumti in the immediate vicinity of a native quarter where cholera had prevailed during the last hot weather. The filtering medium proved to have been the source and vehicle of the cholera infection. When the first company affected moved into camp their filter was, it is said, passed on to other companies and gave rise to the disease in them. The issue of the report of the committee, giving a detailed history of the evidence and results of their investigation, will, it is needless to say, be awaited with interest.

THE PAY OF PRINCIPAL MEDICAL OFFICERS OF ARMY CORPS IN INDIA.

The *Broad Arrow* calls attention to the fact that the pay of the surgeon-major-generals who may be appointed Principal Medical Officers of the Army Corps in India under the new organisation will be 2000 rupees a month, which will mulct the officers of the Army Medical Staff of 500 rupees per mensem. The present rate of pay in Bombay and Madras for the Principal Medical Officers of the Army Medical Staff is 2500 rupees. The secretary to the Principal Medical Officer will get 150 rupees extra if an officer of the British service, and if of the Indian Medical Service 600 rupees a month consolidated pay. For some time past it has been known that the Army Medical Staff officers lent by the Secretary of State for War to the Indian Government would suffer pecuniarily by the new arrangements.

EXPERIMENTAL RESEARCH IN INDIA.

A deputation from the Indian Medical Congress waited upon Sir Anthony MacDonnell, controlling the Home Department, to urge upon the Government of India the extension of facilities for the study of preventive medicine and the prosecution of scientific research in that country and also to protest against the Cantonment Act Amendment Bill. Sir Anthony MacDonnell in his reply assured the deputation of his interest in the objects in view and announced that, in addition to the bacteriological laboratory at Agra, a similar institution for experimental research was to be established at Lahore. The third clause—which was the one principally objected to in the Cantonment Act Amendment Bill—has, we are glad to say, since been withdrawn.

THE LATE COLONEL SANDWITH, C.B.

A good many medical officers who have served in Egypt and the Soudan will have read the news of the recent death, after a very brief illness, of Colonel Sandwith, C.B., the newly appointed administrator of Dominica, with great regret. Colonel Sandwith served for a long time in Egypt on the headquarter staff at Cairo, and was deservedly popular and much respected; he was a typical soldier in manner and bearing, and affable and courteous to all with whom he came in contact. The late officer was the brother of Dr. F. M. Sandwith of Cairo.

THE HEALTH OF THE TROOPS DURING THE LATE CAVALRY MANŒUVRES.

The Inspector-General of Cavalry, in his report of Dec. 1st last on the cavalry division lately assembled under his command in Berkshire, says the health of all ranks was very good. The rations are described by the medical officer as of excellent quality. The six bell tents used for hospital purposes proved more than sufficient. All the sick were sent to Aldershot; the railway company arranged to provide at short notice a through carriage for serious cases. No accident of any importance occurred during the drills and manœuvres.

A NEW WATER-SUPPLY FOR SOLON.

The troops quartered at the small hill station of Solon, known to most medical officers who have served in the Punjab, have of late years suffered more or less from typhoid fever, which was thought to be attributable to the water-supply. A sum of money has been granted by the Indian Government for its projected improvement.

DEATHS IN THE SERVICES.

Deputy-Surgeon-General C. J. J. Jackson, of the Bengal Medical Service (retired), at Nice, on Jan. 16th, aged sixty-four. Brigade-Surgeon John Charles Wishaw, Bengal Army (retired), on Jan. 20th, at Mentone, aged sixty-two.

The *Pioneer Mail* states that Surgeon-Colonel Cleghorn, Inspector-General of Civil Hospitals in the Punjab, has been offered the post of Surgeon-General with the Government of India, in succession to Surgeon-General Rice.

The sixty-ninth session of the Army Medical School, Netley, terminated on Thursday, Jan. 31st, when the prizes were distributed by Mr. W. H Russell, LL D.

The *Malabar* sailed from Bombay on the 18th ult. with ten invalids for Netley.

The hired transport *Britannia* arrived on the 25th ult. with fourteen invalids for Netley Hospital.

Correspondence.

"Audi alteram partem."

"THE GENERAL MEDICAL COUNCIL AND THE OBSTETRICAL SOCIETY."

To the Editors of THE LANCET.

SIRS,—Dr. Playfair does but scanty justice to those of our profession who object to the State recognition of midwives. Without entering fully into the matter, it may be pointed out that no objection has been raised to the Obstetrical Society or any other society examining midwives, but exception has been taken to the practice of issuing a pretentious paper to successful examinees which is capable of being and has been known to be used as a certificate allowing the holder to practise midwifery. If the council of the Obstetrical Society would agree to the suggestion made that it should print in red letters across the certificate "This certificate does not entitle the holder to practise either surgery, medicine or midwifery" everyone would be satisfied. Perhaps I may be allowed to correct the statement that there is a desire to attempt to abolish midwives altogether; the desire is to prevent the introduction of the foreign system of the practice of midwifery by State licensed midwives. Dr. Playfair will not prevent the success of the opposition by representing it as being small; it is much stronger than he imagines, and certainly his evidence before the Select Committee of the House of Commons does not add anything material in favour of legislation. It is not very easy to understand why the General Medical Council should mete out treatment to the Obstetrical Society different to that which it administers to the gentlemen who employ unqualified assistants. The one has encouraged unlicensed practice by issuing a colourable imitation of a professional certificate; the others employ the unlicensed, who no doubt are often more competent than those possessed of the society's certificate. Perhaps I may be permitted to remind Sir John

Williams that any ill-feeling that exists is the result of the attempt on the part of those who are attached as teachers to medical schools and lying-in institutions, to thrust down the throat of the profession an unpalatable bolus. His letter will do more to make the profession believe that those who are attached to schools as teachers possess interests which are not identical with those of the rest of the profession.

I am, Sirs, your obedient servant,

Hatfield, Jan. 27th, 1895. LOVELL DRAGE.

To the Editors of THE LANCET.

SIRS,—"Every year I issue a more important-looking parchment to students who have achieved honourable mention in my class, which might just as well be called a colourable imitation of a diploma," is a clause in Dr. Playfair's letter in THE LANCET of Jan. 26th in his defence of the Obstetrical Society of London for the very proper objection raised by the General Medical Council against that Society as a diploma-granting body. Is it not a fact that all lecturers upon obstetrics in our medical schools award similar "certificates" to those students who have distinguished themselves in that particular branch of the curriculum? Dr. Playfair's contention, therefore, is somewhat irrelevant, inasmuch that the successful students in obstetrics are *entitled* to those respective certificates—although they go for nothing; whereas the "certificates," or, rather, "diplomas" (which are most misleading to the general public, who usually look upon their holders as being legally qualified women), granted by the Obstetrical Society afford them a right to practise midwifery and to sign death certificates for still and premature births, &c., alike, which, I maintain, is fraught with very grave objection. What is easier than for one of those so-called midwives to certify for a premature birth or otherwise in cases where an illegal operation may have been performed by some unscrupulous person outside, unknown to the particular midwife engaged?

If we are to accept the Obstetrical Society's diplomas to women for the future to practise a branch of the medical profession, why should not men likewise be admitted to their examination?

I am, Sirs, yours faithfully,

J. FRENCH BLAKE.

High-street, Putney, S.W., Jan. 26th, 1895.

"ISOLATION OF CASES OF OVARIOTOMY."

To the Editors of THE LANCET.

SIRS,—Dr. Cullingworth and I have stated our views on this subject, and I am quite willing to leave the matter to the judgment of the profession; but I should like to be allowed to draw attention to the fact that Dr. Cullingworth concedes the point that isolation is useful, after ovariotomy, "for exceptionally serious cases and cases that seem to be taking a markedly unfavourable course," whilst he makes no attempt to controvert my contention that it is impossible to select these cases with certainty before operation. Hence, if every patient is to have the best chance of recovery, every patient should have the advantage of isolation until convalescence is assured. It seems to me that there is a great danger that the very marked success which follows ovariotomy as a rule may have a tendency to jeopardise, in many ways, the more serious cases. A simple ovariotomy is not a difficult operation, but the diagnosis is never quite certain and the simplest looking case may tax the resources of the surgeon and the vital powers of the patient to the uttermost. I hope I may be permitted to add a cordial acknowledgment of the very kind way in which Dr. Cullingworth has referred to my work in his letter to you, and in the recent debate at the Royal Medical and Chirurgical Society. Such recognition and the manner of expressing it are most gratifying to me, and it is a special satisfaction to think that Dr. Cullingworth and I differ on the isolation question with mutual esteem and goodwill.

I am, Sirs, your obedient servant,

Portman-street, Jan. 26th, 1895. JOHN D. MALCOLM.

THE MEDICAL ENTRIES AT THE UNIVERSITY OF EDINBURGH.

To the Editors of THE LANCET.

SIRS,—My attention has been called to an annotation in your issue of Jan. 26th, headed "The Medical Schools," in which it is stated that "the new entries at the Edinburgh University show a total of 136, the number of students on the roll, including the fifth year and upwards, being 1213." I beg to inform you that these two numbers should be 207 and 1248 respectively. Hoping that you will be good enough to make this correction.

I am, Sirs, yours faithfully,

Edinburgh. J. KIRKPATRICK,
Secretary of Senatus.

*** We give publicity to this letter of correction from the Secretary of Senatus of the University of Edinburgh with pleasure. The figures as supplied to us from the University of Edinburgh in answer to an application were as follows:—Number of new students, 136. Students attending the University—first year, 199; second year, 244; third year, 222; fourth year, 241; fifth year and upwards, 307; total, 1213. The return was dated Nov. 15th, 1894, a date which we considered would nearly correspond with the date at which the returns were collected from the London schools. The return would thus be most useful for comparison with our table.[1] The difference in the figures shows the accession to the roll of Edinburgh students that has taken place since the beginning of the current medical year.—ED. L.

THE DENTIST'S EDUCATION.

To the Editors of THE LANCET.

SIRS,—Very considerable alterations should be made in the curriculum of the L.D.S. Eng., not only in the interests of the dental student, but in those of the greater profession to which the specialty is gradually becoming more closely allied. The first step should be to make a third year of hospital study compulsory. At the present time a dental student need only pass two years at hospital, and although he must be signed up for three years' dental mechanics the third year of this course is usually ignored, and in many cases the apprenticeship is merely nominal. Consequently, many students have to crowd the whole of their education into two hospital years, and even if they get through the examination they are neither likely to prove a credit to their profession nor an unmixed blessing to the community. There is no earthly reason why students should not be compelled to pass a practical examination in dental mechanics before they enter hospital, and this would prevent the possibility of two or three of the best years of a young man's life being wasted or would throw the onus of his failure on those who accepted the premium for his apprenticeship. Two years of hospital are not sufficient, for in that brief time the hapless dental student has not only to dissect and to attend the lectures and demonstrations required for the second examination of the Conjoint Board, but has also to fulfil an elaborate special curriculum. He must attend lectures on dental surgery (two courses), dental anatomy (two courses), dental mechanics, and dental metallurgy, and every student ought to spend several hours a day between 9 A.M. and 4.30 P.M. in attending patients. He must do hundreds of "fillings," some of which will take at least three hours each, must learn to extract teeth, must make and fit dentures, regulation plates, and "crowns," and must, in general terms, acquire manipulative skill of the highest order. Dental students should be considered much cleverer than medical students if they are expected to do all this properly in two years.

The examination for the L.D.S. Eng. is grievously comprehensive and varied, commencing with written papers on anatomy, physiology, surgery, dental anatomy (human and comparative), and dental surgery. Every candidate has a practical examination of about six hours' duration on dental mechanics and practical dental surgery. At the *viva-voce* he is examined at four tables in succession—viz., anatomy, surgery, dental anatomy, and dental surgery. Nothing but severe cramming can get the candidates ready, and it is the rule, not the exception, to cram for the L.D.S. Eng. No astonishment need be felt at the high percentage of rejections. There is small gain in jumbling together anatomy, physiology, surgery, metallurgy, microscopy, materia medica, dental anatomy, dental surgery, and operative dental surgery in one final test at the end of two years. The examination should be divided into two parts. The first should be held at the end of the second year, embracing all the

[1] THE LANCET, Nov. 3rd, 1894, p. 1061.

above-named subjects excepting surgery, dental surgery, and practical dental surgery, and these three subjects should form the final examination at the end of the third year. Glasgow is far ahead of England in having divided the subjects of the L.D.S. into two parts. I believe that the need of a third year is widely felt amongst dental teachers, and that the extension would not materially check the registration of new students, whilst the value of the L.D.S. diploma would be enhanced and the status of the dentist would be improved. The adoption of a fifth year in the medical curriculum must be followed by a third year in the dental curriculum, or the hospital training of the dentist will become shorter still by comparison with that of the medical practitioner. The medical profession would like to feel that every dental surgeon had passed at least the second examination of the Conjoint Board, but unless the dental course is to be extended there is little hope of improvement.

I am, Sirs, yours faithfully,

F. NEWLAND-PEDLEY, F.R.C.S. Eng.

Devonshire-place, W., Jan. 25th, 1895.

"THE DEBATE ON THE NATURE AND TREATMENT OF PERITONITIS AT THE OBSTETRICAL SOCIETY."

To the Editors of THE LANCET.

SIRS,—I think it a waste of time to discuss whether micro-organisms cause peritonitis. If Mr. Tait is not convinced by the evidence before the profession he is not likely to be convinced by anything. I am glad to have given him the opportunity of better defining his opinions as to the benefit of purgatives after abdominal operations. Some years ago he said he cured peritonitis with them, as Mr. Malcolm has shown in his letter to you published in your last week's issue. Then he denied this. I supposed that he meant that he prevented it. Now we know that he claims neither to prevent nor cure peritonitis with purgatives, but simply to relieve intestinal distension. In this, I think, the profession will have no difficulty in agreeing with him.

I am, Sirs, yours faithfully,

Jan. 29th, 1895. G. ERNEST HERMAN.

To the Editors of THE LANCET.

SIRS,—Mr. John D. Malcolm has made this subject so peculiarly his own that it is dangerous for any other dog to bark at it. Nevertheless, at the famous debate at the Harveian Society he ingenuously admitted that his powers of oratory were not such as to permit him to make his meaning clear. I do not think his literary efforts are a success of a higher order, otherwise I certainly have spoken in vain. I offer to let him have his own way, in spite of all tradition and former belief that the cases I described are not peritonitis. I agree to admit his conclusion that the cases that die are peritonitis, because we make post-mortems of them and find it so. We do not make post-mortems of those that we help to recover by purging, and therefore I cannot say that they are cases of peritonitis. Mr. Malcolm says they are not cases of peritonitis, and I gracefully yield to the authority; but I say they would be cases of peritonitis if they were left alone or had opium, and therefore I say that we beat the peritonitis. Even this may be wrong, and therefore I say that I do not care for "pathologico-metaphysical conundra." Surely, after this concession Mr. Malcolm will either leave me alone or go and get trepanned.

I am, Sirs, yours truly,

Birmingham, Jan. 28th, 1895. LAWSON TAIT.

THE LONDON MEDICAL STUDENTS AND THE UNIVERSITY OF LONDON: A GRIEVANCE.

To the Editors of THE LANCET.

SIRS,—The London medical students have a real grievance. The London University medical degree is too hard for the majority of students. Some recognise this from the first, and do not attempt to get it; others give up trying only after repeated failures. In Scotland the case is different. A man of ordinary ability and fair industry is sure to get a medical degree; in London this is not the case. At the end of their period of study, and after they have had a clinical experience which it would be impossible to get in Scotland, many London students who have worked hard have to start in practice without a medical degree or to take one elsewhere. Some who have a year or two to spare go to Durham, and not a few to Brussels. It is sometimes assumed by graduates of other universities that there must be something wrong about a man who goes to Belgium for a degree. This assumption is unfair and often groundless. Many able, experienced, and learned men have found it the only method by which they could take a medical degree for which their previous training had fully entitled them. The fact that the degree of the University of London is much more difficult to get than that of the Scottish Universities is a real hardship to the London medical student, because his inability to get a degree may place him at an unfair disadvantage in practice if he have as a competitor a man who, although he has had less experience, is still a "Dr." whilst he is a "Mr." Your readers will, I think, agree with me that there are few country towns which could not furnish examples to the point.

I am, Sirs, your obedient servant,

York-street, W., Jan. 24th, 1895. RICHARD SISLEY.

*** Dr. Sisley enumerates with precision points which we have frequently taken occasion to bring to our readers' notice. We are happy, however, to print his letter, as a *résumé* of the position of the London medical student is well-timed at the present moment.—ED. L.

"THE ABSENCE OF SUGAR FROM NORMAL URINE PROVED BY A NEW AND SIMPLE METHOD."

To the Editors of THE LANCET.

SIRS,—A careful perusal of Sir George Johnson's interesting article in THE LANCET of Jan. 12th and an extensive experience of the picric acid test and most other of the reactions which have been proposed from time to time for the detection of diabetic sugar in urine induce me to make some comments on the facts and arguments adduced by Sir George Johnson.

No one will dispute that the test described by Sir George Johnson, and so strongly advocated by him, is one of great simplicity and facility of application; but perhaps all will not so readily endorse his claim that for clinical and life assurance purposes no method of testing for glycosuria equals this for ease, rapidity, and absolute trustworthiness. In the first place, Sir George Johnson does not appear to claim that the reaction is absolutely reliable in its application to urine containing less than two grains of sugar per ounce, if, indeed, it is trustworthy at all in the case of this and smaller proportions. A fluid ounce of water weighs 437·5 gr., not 480 gr., as I gather from Sir George Johnson's closing paragraph he supposes to be the case. Hence the so-called "percentage"—or, more correctly, the number of grains per 100 fluid grains—can be found by dividing the grains per fluid ounce by 4·375. Therefore two grains per ounce correspond to 0·46 "per cent." It would be absurd for me to question the view apparently held by Sir George Johnson that any proportion of sugar materially less than this may be safely neglected; but it is a proposition that many of those who suffer from glycosuria in its milder forms will be delighted to believe. It seems probable, also, that such cases will receive a warmer welcome from the insurance companies than has been the case in the past. Further, Sir George Johnson holds that a trace of sugar in normal urine, if existent, is of no practical importance to the physician. On all such points I at once bow to Sir George Johnson's opinion, but when he approaches the question from a chemist's standpoint I may say frankly that I am not convinced either by his arguments or his experimental evidence.

Sir George Johnson bases the whole of his argument on the assumption, in my opinion quite unwarranted, that it is possible to recognise slight differences of tint in liquids which are each of them somewhat strongly coloured. Thus, the kreatinine present in normal urine admittedly produces a blood-red colour with the picric acid test, and it is only the production of a red-brown colour (exactly imitated by a solution of acetate of iron) over and above this blood-red tint that we are desired to observe

Yet even this unavoidable colour produced by normal urine is apt to be more than twice as intense in one sample as in another, the coloration ranging, according to Sir George Johnson, from a tint represented by 0·5 gr. per ounce in some urines to 1·2 gr. in others; yet the allowance made for this variable interference is a constant one. In Sheffield, we are accustomed to estimate the percentage of carbon in steel by dissolving a weighed portion of the sample in nitric acid and comparing the depth of brownish tint possessed by the solution with that given by a standard steel treated similarly. Many hundreds of samples are tested annually in my laboratory by this process, which bears a close resemblance to the estimation of diabetic sugar by Sir George Johnson's picro-saccharometer. But our wide experience with this process has taught us that it is quite impossible to form an accurate opinion on the depth of tint of solutions so intensely coloured as those employed by Sir George Johnson. Hence his quantitative results must be of the roughest kind, and, while amply sufficient to form a judgment as to the progress made by a diabetic patient, are quite inconclusive as evidence on the vexed question of the presence of traces of sugar in normal urine. Sir George Johnson himself finds that the picric acid test gives no indication of sugar in solutions containing less than 0·01 per cent., and leaves it to be inferred than in solutions more concentrated than this the colour is produced with an intensity exactly proportionate to the amount of glucose present. This, on the face of it, is extremely improbable, and it is far more likely that the reaction becomes gradually more imperfect as the dilution increases, so that in highly dilute solutions considerably more sugar is required to produce a given tint than in concentrated solutions. The same argument applies to the colour produced by kreatinine. The fact is that, with the picric acid test, we are dealing with a variety of coloured liquids ranging in tint from pale yellow to deep coffee-brown, and their variability renders any exact quantitative inferences wholly impossible. First we have the colour of the urine itself, varying through a considerable range. Then Sir George Johnson must have been exceptionally fortunate if he has succeeded in obtaining picric acid which does not give more or less reddish coloration when boiled with caustic alkali. I have a specimen now before me which gives a colour indistinguishable except in depth from that yielded by a sample of normal urine; and on diluting with two measures of water the liquid resulting from the application of the picric acid test to the latter the tints are identical. Repeated recrystallisation has failed to prevent this behaviour entirely, and it follows that the purification of the reagent is difficult, and the unpurified acid untrustworthy. Then the caustic potash is apt to contain traces of cyanides which react with picric acid exactly like sugar. Next there is the colour (varying from 0·5 to 1·2 grs. per oz.) produced by normal urine; and finally we have the colour due to actual sugar. Yet, with all these variable conditions and sources of error, Sir George Johnson wishes us to regard an observation of the depth of colour produced with picric acid as conclusive evidence of the absence of traces of sugar from normal urine. It may be absent, *but Sir George Johnson has not proved it*. On the other hand, we have the production by numerous observers of the definite crystalline glucosazone by the treatment of normal urine with phenyl-hydrazine, a reaction far more convincing to chemists than the non-production of a red-brown coloration in presence of a blood-red, which is substantially the negative evidence on which Sir George Johnson's position rests.

In one of his communications to THE LANCET Sir George Johnson pooh-poohs the indications of the phenyl-hydrazine test because it detects traces of sugar undiscoverable by picric acid; but he has made no attempt to show what substance it is which, from its resemblance to glucose, has repeatedly deceived the very elect. He has also to explain away the fact (or traverse the method) that Dr. Pavy has, by operating on very large quantities of normal urine, isolated a substance which not only responds to the phenyl-hydrazine test, but reduces solutions of bismuth and copper, and last, but not least, ferments on addition of yeast.[1]

Returning to the application of picric acid to the examination of urine for comparatively large quantities of sugar, it is evidently desirable to avoid, if possible, a test which gives more or less reaction even with normal urine. It is also an advantage to employ a test which consists in the *discharge* of a colour, as in Pavy's modification of the copper test, rather than one in which colour is *produced*. Even Sir George Johnson would probably give the preference to a test of this sort, unaffected by kreatinine or uric acid, if it were as rapid and easily applied as that with picric acid. The above desideratum is met by a test proposed by M. Crismer,[2] based on the decolorisation of the red coal-tar colour known as "safranine" when heated in alkaline solution with glucose. I have myself proved that the reagent is not affected by kreatinine or uric acid, and M. Crismer states that it is also indifferent to kreatine, chloral, chloroform, hydrogen peroxide, &c., and is only slowly reduced by solutions of albumen. Hence, any notable discharge of colour produced by a sample of urine previously freed from albumen may confidently be set down to the presence of sugar. In carrying out the test I employ equal measures (1 drachm each) of the sample of urine, normal soda or potash (liquor potassæ, B P.), water, and a solution of one part of commercial safranine in 1000 of water. The mixture, which has a deep red colour, is heated in a test-tube until it boils freely, agitation and consequent contact with air being avoided as much as possible. If the urine contain more than 0·1 per cent. of sugar the liquid will be decolorised, but otherwise the red colour will remain intact or be only partially discharged. If the colour be destroyed, the test may be repeated with two or three times the volume of safranine solution that is used of urine, every additional measure of safranine solution which is found to be decolorised representing roughly 0·1 per cent. of sugar in the sample. If more than four or five measures are required there is marked glycosuria, and it is desirable to dilute a portion of the urine to ten times its bulk with water, and make a fresh experiment with equal measures of this diluted urine, potash, and safranine solution.

The end of the reaction is indicated by the liquid becoming pale yellow and turbid. The colouring matter is not actually destroyed, but merely reduced to a leuco-derivative, which rapidly becomes red again on exposure to air.

In my experience the safranine test is one of the simplest and most certain clinical tests for urinary sugar, and deserves to come into general use. Its advantages over the picric acid test are obvious, while its application is quite as simple. The rough quantitative indications obtainable in the manner above indicated will often afford great assistance to the medical practitioner. On the other hand, attempts to base on the reaction an accurate quantitative method by operating in the manner of Pavy have been unsuccessful.

By employing the safranine in the form of pellets instead of in solution the addition of a definite quantity of the colouring matter would be much facilitated, and the clinical application of the test rendered extremely simple. The alkali might be employed with advantage in the same form, and I am in hopes that this suggestion will shortly assume a practical shape.—I am, Sirs, yours truly,

ALFRED H. ALLEN, F.I.C., F.C.S.,
Vice-President of the Society of Public Analysts.
Surrey-street, Sheffield, Jan. 19th, 1895.

P.S.—Jan. 30th.—The foregoing letter was written before the appearance of Sir George Johnson's letter published in THE LANCET of Jan. 26th. Although it is true that the carbohydrates are by no means the only bodies which react with phenyl-hydrazine to form crystalline compounds, still, if the compound obtained have the same melting point as the osazone yielded by glucose and exhibit the exact crystalline form of glucosazone, it is strong *primâ-facie* evidence that we are really dealing with that body. It would be interesting to learn from Dr. Pavy whether he has made any attempt to regenerate the glucose from the crystals of pseudo-glucosazone which he obtained by the application of his process to normal urine; but, even in the absence of this crucial test, the affirmative evidence he furnishes is, to my mind, of incomparably greater weight than the negative reaction with picric acid.

[1] Physiology of the Carbohydrates, p. 180.

[2] Pharmaceutische Zeitung, xxxiii., 65; Pharmaceutical Journal, [3], xix., 348.

MEDICAL BULLETINS.

To the Editors of THE LANCET.

SIRS,—Now that the sadness of Lord Randolph Churchill's illness has ended in his death, may I call attention to the daily bulletins issued by the physicians in charge of the case? The subject is one that demands the earnest consideration of the medical profession. The system of recording

almost daily the various symptoms occurring may possibly from a clinical aspect be of some interest to the medical world, and their publication in a professional journal might not be very objectionable, though certainly unnecessary. But the severest comment upon them has been made by men of all shades of thought, who could not but wonder at the want of taste and professional reticence exhibited in the record we have daily read in the lay press. From a very early stage of the case the fact was admitted that recovery was hopeless; and yet, in spite of this, the physicians almost daily issued bulletins depicting the varying phases of the case, the gradual sapping of the fortress of life, in a manner that was as regrettable as it was inconsistent with the standard of professional reserve. The world knew that a great life was passing away, but it did not need to know the painful steps leading to the end, and it is impossible to say what good purpose is served by their publication. Personal friends might satisfy their anxiety in the usual way; more than this was inexpedient. Is it possible to hope that in future like cases a wiser reticence, a more discreet caution, may be observed?—I am, Sirs, yours truly,

Jan. 26th, 1895. E. F.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Hospital Sunday.

NOTWITHSTANDING the very inclement weather which prevailed here on Sunday, Jan. 13th, and the very depressed state of trade and commerce, the collections made, augmented by donations from those who were unable to be present and by some collections made on Jan. 20th, will compare very favourably with those of past years. Up to the present the treasurer has been advised of the sum of £5341. Among other collections are the munificent ones of £797 from the Unitarian Chapel, Renshaw-street; £626 from the Sefton-park Presbyterian Church; and sums of £158, £137, £125, £116, and two of £100 each.

Death from Anthrax at St. Helens.

An inquest was held on Jan. 21st by the county coroner on the body of a man forty-four years of age, who had worked as a labourer for some years for a firm who kept manure works. He went to work on the 16th in his usual health but seemed unwell at dinner time, and his wife noticed a swelling in his neck. He complained of a fluttering sensation there, and that night the swelling had increased. On the following day he was worse and saw Dr. Casey, who sent him to the hospital in a cab. He was there seen by Mr. F. Knowles, who found him suffering from acute inflammation in the neck, with much swelling and great difficulty in breathing. The deceased said he had had a pimple on his neck and had scratched it. He subsequently died from anthrax, and the jury, in returning a verdict of "Death from blood poisoning," suggested that there should be special rules for the guidance of men at similar works.

Fatality at the Liverpool Workhouse.

An adjourned inquest was held on Jan. 17th by the city coroner upon the bodies of three men who had died in consequence of injuries received from a boiler explosion at the Liverpool workhouse. It appeared from the evidence that the deceased men were respectively the engineer, fireman and attendant at the workhouse. The boiler was used for heating the main building and the hospitals. The explosion probably arose from some obstruction in the tank into which steam was periodically blown off and in which the body of a cat was found when it was emptied after the explosion. The engineer died the next day from shock and exhaustion, he having been very severely scalded about the arms and back. The fireman was severely scalded about the scalp, head and eyes, being rendered blind; he had also scalds on the chest and back and a scalp wound, he having been blown across the room. The attendant was scalded very severely about the arms and back. In returning a verdict of "Accidental death" the jury made some suggestions for the prevention of such accidents in future, which the vestry clerk promised should be fully considered.

Neglecting to Notify a Case of Small-pox.

A married woman was brought before the stipendiary magistrate for neglecting to notify to the medical officer of health a case of small-pox which occurred at her residence. A sanitary inspector called at her house the previous Thursday, and she told him that there was no sick person in the house. On the Saturday he called again, and found her son in bed, his body covered with the eruption of small-pox. The patient had been working at the Birkenhead Docks the previous day and night. He was seen by Dr. Walker, who ordered his removal to the small-pox hospital. A penalty of 40*s.* and costs was imposed.

The Liverpool Northern Hospital.

The annual meeting of the supporters of the Northern Hospital was held on Jan. 16th, at the town-hall, the Lord Mayor (Mr. W. H. Watts) presiding. In their annual report the committee gratefully acknowledge the receipt of £1498 from the Hospital Sunday and Saturday Fund, expressing the conviction that but for this assistance it would have been impossible to carry on the work of the charity. The horse ambulance had been called out 956 times during the year, and had proved itself to be an invaluable adjunct to the institution. The committee regretted that the negotiations with regard to the new hospital were not yet quite completed, but they were so far advanced that there was now no reason to doubt that, through the munificence of the David Lewis trustees, and with the assistance of the corporation of Liverpool, a most complete and convenient hospital would very shortly be provided. In moving the adoption of the report and accounts the Lord Mayor said that the Northern Hospital was an institution which appealed very strongly to every heart that felt commiseration for human suffering. He had had the pleasure that day of going over the hospital, and had seen the noble work which was being done there, and which was carried on under circumstances of the greatest difficulty. He had been through the various wards, and had seen such an amount of suffering that it made one's heart bleed, and yet the loving care that was being bestowed on each individual case was one of the most satisfactory features that one could estimate. The demands on the hospital had outgrown the accommodation, and the arrangements were very defective and insanitary. He was struck with the crowded state of the wards, and though all that could possibly be done was done they were severely handicapped.

The Proposed New Hospital.

It is greatly to be desired that the new hospital shall not only have ample accommodation for the number of patients for which it must provide, but may also be constructed with a view to future contingencies. The situation of the hospital is now central rather than northern, and there is every probability, owing to circumstances, that a considerable addition to the present number of beds (155) will be required. The matter is to be discussed at the next meeting of the city council on Feb. 6th, and it is to be hoped that a spirit of foresight as well as of generosity will animate all who have to decide this very important matter. The hospital was established sixty-one years ago, and is the second hospital in this city.

Jan. 29th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

Queen Victoria's Jubilee Institute for Nurses, Edinburgh.

THE sixth annual report of the Scottish branch of this institute has been published. During the year twenty-three probationers who had received hospital training had been received into the home for district training, and twenty-four had completed their training. At the end of their year the Scottish council was responsible for thirty-three nurses. During the year twenty-one nurses had, on the completion of their training, been engaged by local committees. Eight new local associations had been formed, all being affiliated to the institute. In Edinburgh and Leith, the report says, 2849 cases had been attended. In spite of the benevolent and Christian character of this work the finances of the institute are very unsatisfactory, for, while the ordinary expenditure has been £2046, the receipts have only amounted to £1583, leaving thus a deficit of from £400 to £500, which has been met out of a reserve fund, which, however, is almost exhausted.

The Longmore Hospital for Incurables, Edinburgh.

The cry from this hospital also is for funds. Last year the

accommodation was increased by the building of a new wing, and the hospital can now accommodate 104 patients. It is always full and there are always more applicants than can possibly be admitted. To build and furnish and endow the extension a sum of £15,000 was required and the authorities are still £5000 short of that amount.

Edinburgh University Endowment Association.

Financial assistance is greatly needed by this association also. Last year less money was received than during the preceding year. Amongst other objects to which it refers, the report says: "Another direction in which it would appear that the association is fitted to render substantial assistance is in providing travelling and research scholarships. Many able students are at present hindered by lack of means from undertaking medical or scientific research within the University, which thus loses the benefit of their work. With the aid of research scholarships they would be encouraged and enabled to prosecute such studies, which would be a direct advantage to the University both from the increased number of students who might be attracted to Edinburgh by such scholarships and from the retention in the University of its more distinguished and capable students."

Health of Edinburgh and Leith.

Among the notfications in Edinburgh for the past week were 20 cases of diphtheria, 7 of small-pox, and 336 of measles. There were 2 deaths from diphtheria and 9 from measles. There were no cases of small pox reported in Leith, but there were 5 deaths from diphtheria.

Jan. 29th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

New Lunatic Asylum at Portrane.

THE overcrowding which exists in the Richmond District Asylum has rendered it necessary to construct an asylum at Portrane, which it is estimated will cost £200,000. Fifteen of the leading architects in Dublin were requested to send in plans for the asylum in question, with the understanding that each author of a plan should receive a sum of £40. Twelve architects accepted the proposal, and three assessors were appointed by the Board of Control to examine the plans sent in. These assessors were Sir A. Mitchell, Mr. George Hine, and Dr. Moody. They selected three of the plans which they regarded as of equal merit, the Board of Control to choose the first from among these three; the second to have £100, and the third best design £75. All the designs sent in have been exhibited at the Royal University of Ireland.

Benefit Societies, Cork.

A special meeting of the members of the St. Luke's Mutual Benefit Society was held last week for the purpose of electing a medical officer in the room of Mr. Philip Lee, L.R.C.P. & S. Irel., who had resigned. There were four applicants for the appointment, three hailing from England, but only two put in an appearance. Mr. William McMath, M.B. Royal University, was appointed, this being the fourth society to which he has been elected. A resolution thanking Mr. Lee for his past services was adopted amid applause.

The Club Fight at Cork.

Matters are progressing rapidly in connexion with the club fight. So far six of the clubs have accepted the reasonable terms of the medical men. Some time ago funds were subscribed for the purpose of defraying current and other expenses, but as it was felt that something more should be done, a meeting was held last Wednesday, and a sum of £450 was at once handed in. It is very much to the credit of some of the club practitioners that, though they have lost their clubs, they individually subscribed £15 and £20 to the medical war chest.

Resignation of Professor John England.

Professor John England, who for a period of over forty years occupied the chair of Natural Philosophy at the Queen's College, Cork, has retired on a pension. Many of the students who were pupils of Professor England now occupy high positions, both at home and in the colonies, and all entertain for him the most cordial and genial feelings of friendship. He has been succeeded by Professor Bergin, M.A., who had a distinguished career at Trinity College.

Coronership of North Tipperary.

The office of coroner for the North Riding has become vacant, and there are six candidates for the post, three of whom are medical practitioners—viz., Mr. H. F. Powell, L.R.C.P. & S. Edin., J.P., of Nenagh; Mr. M. J. Quigley, L.R.C.S. Irel., J.P.; and Mr. J. C. Daly, L.R.C.P. & S. Edin., J.P., of Borrisokane. A like number are solicitors.

The Belfast Hospital for Sick Children.

The annual meeting was held on Jan. 25th, and from the report it appears that during the past year there were 11,438 extern and 403 intern patients. A class of senior students are attending the hospital cliniques. The drainage at the Convalescent Home has been set right. The ordinary income for the year was £1956 13*s.* 9*d.* and the expenditure amounted to £1188 9*s.* 9*d.* The average cost per annum of each bed was £34.

Small-pox in Newry.

A serious outbreak of small-pox has occurred in Newry, the disease having been conveyed, it is thought, from Dublin. One case died on Sunday, another is in a very dangerous state, and eighteen patients are in the hospital. The schools are to be closed for six weeks. Vaccination is being carried out extensively, and a member of the Public Health Committee has given notice that he will move the adoption of the Infectious Diseases Notification Act. So far the disease is confined to the working classes.

Curious Inquest in Belfast.

An inquest has recently been held in Belfast which has caused considerable attention in medical circles. A man was brought to the Royal Hospital having sustained an injury by a fall, and subsequently died. At the inquest last week the resident staff reported that the cause of death was delirium tremens. This apparently annoyed the deceased's friends, and, their evidence being that he was not a drinker, the coroner adjourned the inquiry to Jan. 28th and ordered two outside medical men to make a post-mortem examination. Their evidence confirmed that of the house physician in the hospital, as they stated that the scalp wound present, which did not injure the pericranium, was not attended with any inflammatory action and the recently fractured collar-bone was in good position and perfectly set. They found the vessels in the head slightly congested, the right lung congested, a large quantity of fat about the heart, the liver 6 lb. in weight, congestion in patches of the interior of the stomach, the spleen twice its normal size, and the kidneys twice their normal weight. They believed (as was the view of the previous medical evidence given by the house physician of the hospital) that delirium tremens was the cause of death. The verdict was that death was caused by delirium tremens accelerated by a fall. One of the jurors disagreed with the verdict. One of the medical experts in his evidence stated that not only was the scalp wound not a severe one, but that it was not of such seriousness as to justify the staff of the hospital in detaining him. The medical experts thought that neither the scalp wound nor the fracture of the collar-bone was sufficient to cause the delirium tremens, but that the direct cause of death was delirium tremens. They could find nothing that would account for death except delirium tremens.

Jan. 29th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Idiopathic Polyuria.

DR. MARINESCO[1] has recently had under his treatment two boys (brothers) affected with the above disease. Their mother suffered from the same ailment, but in a slighter degree, during her pregnancies. The quantity of urine passed by each of the brothers averaged no less than twenty-eight litres a day. Analysis of the secretion revealed nothing abnormal beyond an excess of chlorides. One of the children

[1] Société de Biologie, Jan. 19th.

having succumbed to cerebral meningitis an opportunity was offered of a detailed examination of the nerve centres. The fourth ventricle presented to the naked eye an œdematous or, rather, gelatinous appearance. Histologically no alteration was discovered in the nuclei of the vagi, but the walls of the fourth ventricle were the seat of small hæmorrhages outside the vagi nuclei, and the neuroglia was considerably hypertrophied. The delicate fibrillæ of the ventricular walls had, moreover, disappeared.

Population Statistics of France in 1893.

During the year 1893 there were registered in this country 287,294 marriages, 6184 divorces, 874,672 births, and 867,526 deaths, a considerable improvement on 1892 during which year there occurred 18,825 births less and 8362 deaths more than in 1893. In other words, instead of a deficit of 20,041 we have on the credit side an excess of 7146 births. Of the children born no fewer than 76,562, or 8·8 per cent., were illegitimate—the highest proportion yet attained in France. The deaths comprised those of 449,682 males and 417,844 females, with a total mortality of 22·8 per 1000 inhabitants. Comparing the births with the deaths according to sex, it is found that with 446,957 births and 449,682 deaths there has been a loss of 2725 males, whereas an inferiority in the births has not prevented a gain on the female side of 9871. In thirty-six departments there was an excess of births over deaths, whereas in fifty-two departments the contrary was the case. Thus, in the Nord births exceeded deaths by 13,427; Pas-de-Calais, 8573; Seine, 4747; Finistère, 4403; Morbihan, 3080; Loire, 2437; and Corse, 2241. The principal offenders on the other side are the Rhône, Orne, Sarthe, Haute-Garonne, Hérault, Eure, &c. The number of divorces shows an increase of 412 over that of 1892, the proportion per 100,000 households being 81. Of the 6184 divorces the Seine department is responsible for no less than 1673—a proportion of 272 per 100,000 *ménages*. The Lozère department has the credit of having steered absolutely clear of the mode of relief placed at the disposal of *mauvais ménages* by M. Naquet. It is perhaps not generally known in England that the above-mentioned author of the Divorce Law, and former mentor of the late General Boulanger, was a distinguished chemist. His association with divorce proves him to have been fonder of analytical than of synthetical experiments.

Dr. Hergott.

This distinguished obstetrician (the father, not the son) was at the last meeting of the Académie des Sciences elected a corresponding member in the Section of Medicine and Surgery by 32 votes, as against 6 accorded to Dr. Laveran of paludic fame.

Prophylaxis of Broncho-pneumonia.

Dr. Hutinel has succeeded in almost stamping out broncho-pneumonia amongst his little patients at the Enfants Assistés affected with measles. The practical extinction of this formidable complication is due to the following precautions: every child is given sublimate baths; every sore, abscess, or crust of impetigo is carefully dressed; the nose and fauces are irrigated several times daily with boric solution or boiled water, and, finally, every child affected with broncho-pneumonia is promptly isolated.

Jan. 29th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Club Practice in Berlin.

THE position of the medical profession in Germany has been entirely modified by the "workmen's sick laws" (*Krankenkassen-Gesetz*). Formerly a young medical man began practice by treating the families of the working class till he became known and got patients among the better classes. Since the above law has come into force (1883) the workmen must form clubs, which are maintained by the contributions partly of the employers and partly of the workmen themselves. These clubs are obliged to provide the members with free medical attendance and medicine, and to pay a weekly sum if illness incapacitates them for work. The committees of these clubs, in order to pay as little as possible for the treatment of their members, appointed a limited number of medical men and gave them a fixed annual salary on the condition that they attended the members free of charge. Thus club practice was withdrawn from general competition, and the position of the young medical men who were not fortunate enough to get club appointments became difficult. For the club members, too, it was a great drawback that they could not choose the medical man they liked, but had to apply to a practitioner in whom they had very often no confidence. No wonder that a combination, consisting chiefly of young medical men, made efforts to alter this state of affairs. They claimed that the united clubs should no longer appoint a limited number of medical officers with fixed salaries, but that every medical man who agreed with the club terms should be allowed to attend its members. They succeeded, indeed, three years ago, and a new system was adopted by some of the most important clubs. This system was that the clubs paid a certain amount (three marks a year) for every member, and that the total sum was distributed among the medical men according to the number of consultations they had given. All the medical men who were willing to treat club patients on these terms formed an association called the "Free Choice Society" (Freie Arzt-Wahl), into which every medical man could be admitted. At the end of 1894 more than 1100 Berlin practitioners belonged to the society. By this agreement club practice was, to the general satisfaction, open again to all the members of the profession. Also the sick workmen were very satisfied with the reform, and when more and more clubs adhered to the "free choice movement" it was expected that the old system would soon be entirely abolished. To the general surprise, the largest of these clubs (that of the unskilled workmen) declared at the end of last year that they would no longer admit every medical man without distinction to club practice. They asserted that many of the younger practitioners, to gain the favour of the patients, had ordered too many and too expensive medicines, that they had often extended the treatment too long, and that they were incapable of distinguishing the really sick from those who only feigned illness in order to be relieved by the club. These different things were said to have brought the clubs to the verge of bankruptcy. A still greater injury was done to the "free choice system" when the municipal authority, who have the legal control over the clubs, ordered them to appoint again a limited number of medical officers. Several did so and elected 150, but still adhered to the system of paying, not a fixed salary, but a sum according to the number of consultations. The importance of the club practice question will be clear even to foreigners if they consider that in some quarters of the town occupied by working people nearly 90 per cent. of the male and a large proportion of the female population belong to clubs. If the "free choice system" is given up definitely the result will be that the medical men who practise in these districts, but do not hold appointments, will make very little. We do not yet know the end of the matter, but the future of many Berlin medical practitioners depends on its issue.

Collective Investigation concerning Antitoxin.

An official investigation of the results of sero-therapy will be made by the Imperial Government. The hospitals of any importance throughout the empire are invited to take part. They must give a minute account of every case treated; if bacteriological examination was performed they must say if only Löffler's or other bacilli have been found; also they are asked if the curative effect of antitoxin was certain, probable, or not at all remarked. The answers are to be sent to the Imperial Health Office, where they will be collected and published. Another collective investigation will be made by the *Deutsche Medicinische Wochenschrift*, but this is not confined to hospitals only, but extends to all practitioners in Germany. Cards have already been sent to them with the following questions: How many of your patients were treated with, and how many without, antitoxin? How many in both these categories recovered and how many died? There are subdivisions for the ages of the patients, and the complications are also to be reported. The scientific and statistical work will be done afterwards by a committee, whose principal members are Professors Behring, Leyden, Heubner, and Ehrlich, and some other leading men.

A New Chair in the Medical Faculty of Berlin.

Dr. Heubner, Extraordinary Professor for Children's Diseases, has been promoted to the rank of Ordinary Professor. In foreign countries one scarcely understands the great

difference between an ordinary and an extraordinary professor, and English readers not acquainted with German university customs will not think this fact worthy of mention. They may be informed that only the ordinary professors belong to the board which controls the affairs of the faculty, nominates new professors and lecturers, promotes medical man, &c. They elect the dean of the faculty and the rector of the university, the highest rank in academical life, and are themselves eligible for these offices. Besides, they get fixed appointments from the Treasury and the fees for the faculty's degrees. The extraordinary professors have none of these advantages, either ethical or pecuniary, but earn only the salaries paid by the students for their lectures. Whilst the faculty may elect as many extraordinary professors as they think proper, the number of ordinary professors is strictly limited to the principal branches of medicine, anatomy, physiology, clinical medicine, surgery, and some others. The faculty boards are usually not much inclined to propose an increase of the ordinary professors, and Professor Henoch, the well-known predecessor of Heubner, (whose text-book has been translated into English), made long but unavailing efforts to have a new chair for children's diseases created. He suggested that this would be an honour conferred not on himself but on the specialty he taught. In many other universities—especially those of Bavaria, Saxony, and Austria—the number of ordinary professors is much greater than in Berlin, and the diseases of children, and diseases of the ear and of the skin have long since been found worthy to be represented on the faculty board. No doubt it would be still better if all these old-fashioned distinctions could be abolished and all professors have equal rights and equal duties; but this is, of course, not to be obtained without a total reform of university organisation.

Jan. 28th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

The Health of the Pope.

FROM Jan. 6th to 16th the Pope had a "leggero raffreddore" (slight cold), a return of the same indisposition which, as mentioned in THE LANCET of Dec. 15th, 1894, caused the suspension of all but private audiences on the part of His Holiness. On the 16th, however, the Commendatore Dr. Lapponi was able to assure inquiring visitors that the ailment was well nigh gone, a slight depression of voice being all that remained of the symptoms. Prudence still counselled the Holy Father's keeping his apartment, and only on the 17th did he resume his audiences, the first to be received being Monsignor Francica-Nava, the nuncio at the Court of Brussels, who was followed by Cardinal Galimberti, on important business relating to the presidential crisis in France. The responsibility resting on Dr. Lapponi and his coadjutor Dr. Topai is exceptionally great, particularly in times like these, when their octogenarian patient has the most delicate and difficult affairs on hand—the change from M. Casimir-Perier to M. Faure having disturbed negotiations approaching completion in France, and the substitution by Italy of the Franciscan for the Lazzarist missionaries in Abyssinia threatening unpleasant complications between the Tuileries and the Quirinal.

Sanitation and Hygiene in Italy.

The Direttore di Sanità Pubblica, Professor Pagliani, has just issued his report on the hygiene and sanitation of Italy during the last six months of 1894. Stated broadly, the health of the kingdom during that *semestre* has been satisfactory. There was but one serious epidemic during the six months, and that was the typhoid outbreak by which, in December last, Syracuse was so severely visited, when, in a few days, as many as 160 persons were attacked and twelve died. The phenomenon was tracked to its customary cause—the pollution of the water-supply. A thorough overhauling of the aqueducts and cisterns was instituted, and its completion has been followed by the practical disappearance of the malady from Syracuse. Equally efficacious were the measures adopted by sea and land against the importation of cholera from its *foci* in Turkey, in Portugal, and on the French Mediterranean littoral. In fact, all danger from European ports having been averted, the Direzione della Sanità Pubblica was able, in November last, to suspend *sine die* the medical visitation and disinfection of suspected ships hailing from most of these harbours. These measures, however, have still to be enforced on vessels coming from the Black Sea, from the colonial French ports, from those of Russia and of Roumania on the Danube, from the Sea of Marmora, from the Ægean and from the North African littoral (excluding Tripolitania), and from Brazil. The various sanitary stations in the Adriatic, the Ionian Sea, and in Neapolitan and Tuscan waters (comprising the admirable one described in THE LANCET of Oct. 20th, 1894) have all done good service, the disinfecting processes particularly being carried out with promptitude and thoroughness. The "risanamento" (sanitary rehabilitation) of Naples, to turn to another topic, in spite of interruptions and restrictions due mainly to financial difficulties, is now on a more effective footing, and the Direzione della Sanità Pubblica is in hopes of registering still more progress at the close of the next *semestre*.

The Conditions of Child Labour.

The conditions of child labour in the subterranean industries, especially the sulphur mines in Sicily, have engaged the Ispettorato delle Miniere (mining inspectorship) in an important study which has this day been made public. The gravity of this question is known to readers of THE LANCET. On March 10th, 1894, you called attention to the fact that in Sicily, for example, in the province of Caltanisetta alone, the physical deterioration of the young is deplorable. Dr. Mosso, the Professor of Physiology at Turin, as the result of investigations on the spot, revealed the appalling results of mining labour in the island, results which explain the fact that in the four years from 1881 to 1884, out of 3672 young "solfurari" of Caltanisetta examined by the officers of the military levy only 203 were found fit for service in the army. The "study" just issued by the Ispettorato—the substance of which was brought before the recent International Congress at Milan for the prevention of casualties and deteriorating influences connected with labour—does not confine itself, however, to Sicily or to sulphur mining, but includes all subterranean operations throughout the peninsula and its islands, such as the lignite mines of Umbria, Tuscany, Sardinia, Lombardy, and Piedmont; the lead and zinc mines of Sardinia; the iron mines of Elba; the marble quarries of the Apuan Alps; the "pozzolana" pits in the Roman and Neapolitan "campagna"—in short, all the industries pursued underground, including even the tunnelling works in railway construction. The monograph, for such it really is, covers too vast a space to be more than referred to here. But its data, its conclusions, and its practical recommendations will be found of interest in other States besides Italy—wherever, in fact, labour is carried on removed from the light of day.

Insubordination among Students.

Undergraduate insubordination has lately assumed epidemic proportions throughout Italy—Rome, Pisa, Bologna, Padua, and minor schools like that of Parma, having become the scene of riotous outbreaks on the part of the students. To our British ideas there is far too pronounced an interest in current political affairs among Italy's academic youth, any public incident or "new departure" in the legislative sphere sufficing to engage the undergraduates in keen personal controversy, sometimes with their teachers, sometimes with this or that Education Minister, invariably (I may add) to the prejudice of their studies and the grave breach of that continuity of work and discipline without which academic qualification can never be sound. For the present, the worst of these outbreaks is over; but there is no saying when a new wave of excitement or enthusiasm may reproduce the turmoil and the anarchy so recently running its disastrous course throughout the universities. When, in 1860, Italy became united and independent, her great Minister, Massimo d'Azeglio, said: "Now we have to make Italians!" Certainly the remark, after a whole generation of "unity" and "representative institutions," has lost none of its sting, if the academic history of the last few weeks has any practical bearing on the future of young Italy.

Jan. 21st.

THE INDIAN MEDICAL CONGRESS.

THE SECTIONS.

OBSTETRICS AND GYNÆCOLOGY.

DEC. 24th, 1894.

Presidential Address on the Influence of Race and Climate upon Obstetrics and Gynæcology in India.

[SURGEON-MAJOR H. PEERS DIMMOCK, Professor of Midwifery, Grant Medical College, Bombay, delivered his presidential address. After a preamble dealing with the importance of the subject and the difficulties incidental to its treatment in an Oriental country, he proceeded to the consideration of puerperal fever, saying :]

"Since Professor Semmelweis first placed us in possession of the axioms of puerperal fever there has been accumulated a mass of evidence to demonstrate their truths, and fresh knowledge had been added to them, especially by the discovery of the antiseptic system of Lister. But though the ideas of all authorities are fairly well defined there are still many effects and conditions of puerperal fever and points of difference that are hard to reconcile. This is especially the case in a country like India, which teems with forms of pyrexial diseases that are liable to complicate the pregnant and puerperal states. To indicate all forms of puerperal fever as puerperal septicæmia, whatever the infective cause and however much the symptoms may vary, is alone sufficiently confusing when we are brought face to face with their actual protean clinical facts; and, on the other hand, to seek to differentiate each and every kind of puerperal fever according to its features, whether of cause or effect, would lead us into an interminable phraseology that would be too awkward for any practical purpose. The old familiar term "puerperal fever" as a main distinctive indication is rendered sufficient for all purposes by the affix of a descriptive adjective for the special condition or cause associated with the pyrexia of the puerperium, which, after all, is the generic meaning of puerperal fever. Thus the words 'traumatic, septicæmic, and pyæmic puerperal fever' would describe fairly well the form of puerperal pyrexia that was associated with traumatism, septicæmia, or pyæmia Any local effects can, at the same time, be described as complications, and we should thus have a designation like 'traumatic puerperal fever with pyo-metritis,' and so on. To eliminate the special characters and peculiarities of these and other complex puerperal fevers we require a very extensive knowledge of their clinical features, and in India we are confronted with so many kinds of the fever type of disease that such an inquiry is sure to be full of immensely interesting and intricate possibilities. Clinical observation and deductions therefrom are always most attractive, and have been naturally the principal methods of elucidation of disease throughout all time of medical knowledge. They demand the first attention of the physician, and nowadays, waited on by pathology and its youthful handmaid bacteriology, they are yielding most fruitful results. In these rapidly progressive days we are continually on the outlook for some fresh means of divining the actual causes and conditions of disease, and those occurring in the pregnant state and the puerperium are so environed by their own peculiar accompaniments that there is a separate and special field for the study of them both clinically and pathologically. In a research into the causes and effects of puerperal fever in India we are confronted not alone with special disease entities, but also with the many conditions peculiar to the country itself—of season and meteorological events, of race, of surroundings, of habits, of intercurrent disease, and of the preliminary effects of the pregnant state under such conditions, in all of which I can only suggest what a large field there is for philosophical, thoughtful, scientific, and useful inquiry, especially to those members of the profession who actually practise amongst the people and are intimate by race association with their modes of life and other influences. In a tropical climate the main influence would, of course, be that of the high temperature of the air, by which all developments and changes are brought about with a greater rapidity, so that the tissues become less stable, less hardy, and so tend to disintegrate quickly when once a rift is opened in their continuity. The extreme changes of intense dry stimulating heat in the summer and of a depressing heat that comes with the onset of the monsoons present aspects of variation, apart even from acclimatisation, in the organisms of all who are subject to them, and still more of those whose temperaments are liable to an easy divarication of the physiological equilibrium either towards depression or exaltation. As examples of the differences of disease types under such circumstances may be taken the sharp attacks of fever which occur in the drier seasons of the year and the low forms of continued fever and malarious cachexia with engorgement of the abdominal viscera, especially of the spleen, such as take place in humid states of the atmosphere and damp climates. Frequently the slow development of malarious cachexia produces in the pregnant woman a form of pernicious malarious anæmia which is characterised towards the end by intense anæmia, œdema, and an enlarged spleen and liver, for the sluggish circulation and nervous debility encourage congestion of the organs. Race may show its influence in the various tendencies that are developed out of evolutionary characteristics, as, for instance, the neurotic type, rendering the woman more susceptible of nervous impressions and reactions, often altering the characters of disease by superadded nervous phenomena, such as high temperature quickly subsiding. Habits of food, of drink, and of luxury are worthy of reflective consideration, and it may be accepted as a fact that pregnant women whose food is of a vegetable and non-stimulating kind will have less stamina in enduring prolonged pain and exhaustion, but will recover more quickly from ordinary trials, than those whose food is of a more generous description, while again the latter will be more liable to inflammatory reactions and rapid tissue changes, such as sloughing from traumatic injury. The surroundings of pregnant and puerperal women are manifold in their effects, and include those of the room, the house, the village, and the town, septicæmic, zymotic, and malarious puerperal fevers being the most likely outcome of dangers from these sources.

"I have had the usual experience of most inquirers in being baffled at the outset by forms of puerperal fever that I have had to deal with in India, and what impressed me most in the first instance with some of the cases was their unusual and surprising resistance to rigid antiseptic and aseptic precautions. A study of a series of temperature charts and the effects of various treatment on the temperature gave the true line of explanation. When once the clue was given the opening of some of the hidden processes was shown, so that I venture to tabulate certain forms of complex puerperal fever as follows :—

1. Malarious intermittent puerperal fevers.
   (L) quotidian ; (B) tertian ; (Y) quartan.
2. Malarious remittent puerperal fevers.
3. Thermic ... ... do. do.
4. Dysenteric ... ... do. do.
5. Syphilitic ... ... do. do.

"I have no doubt that others will be added to their numbers as the science of medicine progresses and wrests from the chaos of uncertainty the many forms of Indian fevers. The protozoic causes of these fevers may develop in the pre-pregnant or the pregnant state, and be carried on into the puerperal state to be further impressed with a septicæmic pyrexial element, which is the result of the condition of the tissues and systems of the puerperal patient, rendering the unusual secretions and excretions more liable to the action of infective agents; or these causes may be latent in the system, manifesting no symptoms until they are excited to action by the onset of labour or roused to a more powerful influence by a septicæmic pyrexia. To deal with the group of the malarious forms of puerperal fever I submit cases with their accompanying charts. Many of you may be familiar with an experience that pregnant patients in this country who contract malarious fever, or whose systems are inoculated with its organisms, are very resistant to treatment for malarial fever or cachexia, either because the blood and tissues of the pregnant women are very retentive or reproductive of the disease factors, or because they are specially vulnerable to and ineffective in repelling their ravages. How often it happens that a pregnant woman suffering from malarious fever is treated by all the known methods, which produce no yielding of the fever for some time, and when the pyrexia runs high miscarriage is sooner or later brought about. The quinine may here be wrongly blamed for the mishap, which was in reality due to the overheated blood current and to the poisons circulating in it, and I have elsewhere protested against this shibboleth of the objection to use quinine in doses that are adequate for the control of the disease. At the same time we must not forget that sometimes malarious fever is not affected by quinine, and that the system may also be inoculated with previous treatment by

that drug, so that it fails to give the expected result. It may be some days even before an ordinary attack of ague in a pregnant woman can be controlled, and if the case is allowed to go on without treatment the disease gets such a grip of the patient as to be uncontrollable, and if labour or miscarriage results an additional puerperal septicæmia is an inevitable result. We are also all familiar with the sudden appearance of malarious fever coincidently with a severe shock to the system, such as a fracture of a bone, the passage of a catheter, or an overwhelming emotion, and recollecting that the dilatation of the os uteri is often accompanied by a rigor I have attributed the sudden accession of a high temperature at the commencement of labour to a disturbance of latent malarious poison by the vascular, nervous, and tissue changes wrought by the mechanical process of dilatation. It is difficult to account in any other way for the sudden appearance of these fevers at such crises when they have not been preceded by any signs of a taint lurking in the body, and I believe that the organisms are really latent and that their sudden activity is because the balance of nervous control is disturbed by the event of labour, the vitality of the cells and leucocytes are diminished, and their ranks are thereby thrown open to the invaders, because the reflex irritation to the nervous centres causes through the trophic nerves changes in the metabolism of the body, and through the sympathetic nerves changes in the circulation which facilitate such morbid processes. It is the same with malarious fevers that develop after labour in association apparently with the stimulus to the plasmodia of slight or severe puerperal septicæmic pyrexia, and in these instances the puerperal fever will be established with the thread of malarious fever running through it and giving a distinctive character to the temperature record, for the treatment of which complex condition it is necessary to combine methods applicable to both the diseases. Further, whenever malarial fever is developed in the puerpera there is a liability to what may be called an autogenetic form of septicæmia as a result of the high temperature of the malarial fever, for the lochial secretions decompose rapidly within the genital cavity, and their poisons are absorbed into the system, so as to produce the usual septicæmic effects in addition to those of malaria, and thus to cause a continuance of pyrexia during the intervals that would be remissions of the malarial fever, and to exaggerate the high temperature of the pyrexial stage of the malarious attack. Very high and alarming temperatures are developed in this way. Again, puerperal women who have malarial cachexia may have progressed favourably even beyond the first week, when they expose themselves to a chill, and this is followed by the typical phases of the rigor, of the pyrexic and sweating stages of ague. The lochia become offensive, the temperature is continuously high, and there is an intermittent recurrence of the ague and increased pyrexia. It takes several, sometimes many, days before recovery is brought about, while if proper measures are not adopted the case may end fatally. In all these cases, associated with malaria of whatever kind, we have not only general effects to deal with, but also those local effects that are inevitably associated with the traumatism of labour. The lowered vitality of the tissues makes them very prone to take on a sloughing or even gangrenous character, and such conditions are not only resistant to repair and will heal slowly, but add a further and serious danger to the case from a multiplication of poisonous agents. If no treatment of the constitutional state is adopted their ravages will increase to a terrible extent, so that I have seen cases of malarious cachexia in the puerpera where the genital passages have been in a gangrenous state throughout their whole area; consequently when artificial traumatism is produced by the use of instruments particular precautions are necessary to guard against such effects, and although there may be no apparent symptoms most rigid attention should be paid to the local antiseptic treatment. Another effect of malarious cachexia and of malarious fever during pregnancy is to cause a placentitis, from which the placenta becomes adherent, and so adds a further danger to the case at labour time. The shock of manual detachment may set up the pyrexia of malaria or there may be infection from without by the operation. Such patients often complain of excessive tenderness over the uterus during pregnancy, which is no doubt due to the inflammation that is going on. Another effect of malaria in the puerperium is to produce intense neuralgia of some of the sexual organs. It may be the uterus that is thus affected, in which case it is probably caused by some inflammation of the nerve filaments communicated from a placentitis, or an actual primary neuritis of malarial origin, and the patient may suffer great pain, especially in connexion with the after-pains. I have found the uterus in these patients to be excessively tender, and the condition has mostly yielded at once to quinine and anti-neuralgic drugs. I can recall one case of acute neuralgia of the ovary which followed a miscarriage. The patient did well in all respects except that at a regular hour every afternoon she suffered from acute agonising pain in the left ovarian region. It yielded at once to large doses of quinine. Post-partum hæmorrhage is also very likely to occur, mostly from the effects of the placentitis, but also in consequence of the state of the blood, of heightened blood pressure, and of the defective contractile power of the uterine muscular tissue. Diarrhœa is a frequent occurrence and is of great importance. In all conditions of health or disease in people living in India, whether native or acclimatised, there is a primary climatic potentiality towards diarrhœa. A chill, an irritant, or disease are likely to be accompanied by it in ordinary individuals, and in puerperal fever particularly this natural tendency is exaggerated by the secondary morbid and derivative tendency of the system to relieve itself of the toxæmia through the mucous membrane of the intestines. Accordingly the usual dose of castor-oil will frequently start a severe diarrhœa, and sometimes almost choleraic symptoms are caused by what seems a slight cause. Rheumatism is an occasional complication: the connexion between rheumatism and malaria is outside the present subject, so I will not discuss it. Mania is also a not infrequent sequel and has partly to do with the state of health and partly with the high temperature. The higher the temperature the more likely are the psychological centres of the brain to be injured and disorders connected with them to follow. The fœtus is, as a rule, not particularly affected, except in nutrition, and so suffers from fever at birth only in occasional cases, and this is probably due to the resistant and destructive power of the placental structures, which thus guard the entry of the fœtal area from deleterious matters. A similar result occurs in some cases of syphilis contracted during pregnancy."

[Surgeon-Major Dimmock then quoted cases of various forms of malarious puerperal fevers with their treatment, laying special stress on the point that quinine should be administered hypodermically in order to avoid the effect upon the digestive tract. He continued:]

"The next series of puerperal fevers is that of the dysenteric form, which arises in connexion with a true dysenteric attack. The dysentery itself generally originates during pregnancy, either at full term or earlier. In the former labour and in the latter case abortion or miscarriage are very likely to occur, and so we have a puerperal condition with the dangerous concomitant of very poisonous alvine discharges. Infection of the genital passages from these produces an extraordinary disease of the puerperal fever type. Dysentery itself is very obstinate in pregnant women, and there are no doubt turgescence of the mucous membranes and changes in the circulation, which make the disease persistent. It is also desperately resistant to remedies, so that a dysentery of an acute form in a woman near the end of pregnancy is peculiarly dangerous in this respect as well as from the further risks of exciting premature confinement and of following up its primary havoc by an infection of the system with the fæcal toxines. The most careful treatment often fails to prevent these consequences, and sometimes, when the case has taken a favourable turn, it is liable to relapse. Much may be accomplished by repeated large doses of ipecacuanha, opiates, sedatives, and antiseptics internally and externally; ipecacuanha is sometimes very well borne, so that I have been able to give thirty grains twice a day. No treatment is effective unless the food is absolutely unirritating, and peptonised milk and lime water are the only diet that serves the purpose. I have included an example of another series of cases, those of the syphilitic, because I have found peculiar results in the puerperal state in women who are strongly tainted with the specific disease.

"CASE 7.—M. M——, aged twenty, Hindu, para, admitted in labour on April 26th, 1894, and in consequence of a tedious second stage was delivered by forceps on the morning of the 27th. There had been no complication of pregnancy, but the patient had appearances on her body which indicated syphilis. On admission the temperature was 102·5° F. and the pyrexia continued after delivery. The case was treated antiseptically for simple septicæmia, and somewhat improved, but again relapsed. On the twelfth day of the disease iodide of potassium and santonin powder were

given, with a gradual improvement, but the patient still remained feeble and prostrate and in bad nutrition until inunction of mercury was resorted to on the twentieth day of the puerperium. The improvement was then rapid and satisfactory, and the patient was discharged well on June 11th. This case suggests many questions, Why puerperal fever should develop under such conditions, and whether it is puerperal fever, whether it is a climatic effect on the syphilitic patient, whether the syphilis stirs up an irritative fever in the system, or does the syphilis render the body more susceptible of septicæmia, and the septicæmia more persistent than usual, until specific remedies are used. In cases of puerperal fever of a continuous type associated with increasing cachexia, where the child shows also faint symptoms of congenital syphilis, it is always advisable to administer specific remedies. Of other forms of Indian puerperal fever the thermic is the one most frequently met with, and of course its main characteristic is intense and resistant hyperpyrexia It is usually the sequel of pyrexia occurring before or during labour, although it may occur during the puerperal state, being most liable to happen on the third day in connexion with the usual slight fever which results from any affection or lacteal disturbances on that day. It may be associated with puerperal eclampsia, and cases of this kind that occur without albuminuria indicate an intense congestion of the meninges. Complex cases of puerperal fever in association with other diseases of the pyrexial type must sometimes occur."

[Surgeon-Major Dimmock paid an eloquent tribute to the value of good nursing and concluded :]

> "'Ne let the man ascribe it to his skill
> That thorough grace hath gained the victory.
> If any strength we have, it is to ill,
> But all the good is God's, both power, and eke will.'"

PROCEEDINGS IN SECTION.

DEC. 26TH, 1894.

The following are abstracts of papers read at the Congress :—

Malarial Influence in Abortion and Sterility.

Mr. ARTHUR J. WEATHERLY, M.R.C.S. Eng., L.R.C.P. Lond., in his paper under the above title said :—"From my experience in Africa, Florida, and India, I do not think sufficient stress is laid on the malarial influence in abortion and sterility. In my practice I have had the following cases :—

	Confinements at term.		Abortions.
England	56	.....	2
Healthy parts of South Africa where malaria is unknown	35	.....	2
Unhealthy parts of Africa	40	.....	20
Florida	30	.....	22
India	60	.....	28

And a large proportion of these cases, though living in malarious districts, did not abort at times of an attack of fever—in fact, in very many cases malaria only showed itself in the habit of abortion. I have also noted that a very much larger proportion of women are sterile in malarial districts than in others, and that if they reside many years this sterility becomes permanent, whereas if they leave before too long a time has elapsed they bear children. Of course, in this latter class I do not include those who, miscarrying in malarial districts, bear children in non-malarial climates. Perhaps, as this paper has to be short, the quoting of two typical cases will be sufficient. I would like the experience of others in malarial districts on this subject, as I think its importance is not sufficiently recognised. A woman had frequent miscarriages in the plains. She was constantly in malarious districts. She was treated by various surgical and medical measures, including scraping out the uterus, both in India and in London. On her return to a malarious district, however, she invariably miscarried—generally in the third month. I saw her early in her fifteenth pregnancy (after ten following miscarriages in the plains), and advised her to go at once to the hills and stop there, giving her a tonic of citrate of iron, quinine, and strychnine, and enjoining recumbency for ten days at a time when her period would have been due if not pregnant. She went safely to term. Another woman had lived for years in a malarious district, and had never been pregnant. The first year on coming permanently to the hills both husband and wife suffered much from fever, but in the second year both were in good health, and the woman became pregnant and went safely to term. These are only two instances of very many. The influence of malaria on abortion and temporary sterility is still more marked in the very deadly malarious climate of Florida, where I saw twenty-two cases of abortion to thirty confinements at term, and ten cases of temporary or permanent sterility in a period of two years in a very small district. In a malarious strip of coast country in East-south Africa sheep and cattle constantly abort, and, in fact, the natives have recognised this so well that they keep their breeding stock inland and only send their stock into this strip of country to fatten. In this country there were no Europeans, but abortions were frequent among the native women, though I could get no figures as to the proportion. A large number of women who have been in malarious countries, even if they do not abort, suffer very much more when pregnant at the times when their period would have come on than is common with women who have not been in a malarious country, and require very strict precautions as to recumbency, &c., at such times. In such cases I have found that giving quinine, rather than tend to bring about abortion, certainly tends to ward it off. Though my experience does not extend over very many years, it embraces malaria in very different climates; but in all with the same effect in bringing about abortions and sterility, and proves a danger in the former case, which, I think, is not sufficiently recognised and guarded against."

DEC. 27TH, 1894.

Biliary Cirrhosis of Children.

Mr. JOGENDRO NATH GHOSE, L.M.S., read a paper on the above subject. He said : "Under this title I venture to lay before you some facts connected with what I may call a new disease, which has lately appeared among the children of certain classes in Calcutta and other parts of Lower Bengal. On account of its generally unsuccessful treatment and fatal termination it has of late drawn considerable attention and been the subject of serious thought in the minds of medical practitioners and the general public. I call it a new disease, because it has not yet been treated in any of the current books on practice of medicine. The short descriptions that have appeared in some of the recent medical works of a similar liver complaint are very vague and imperfect, and they do not seem to refer exactly to the particular disease now under discussion. It also escaped the observation of early European practitioners, who in most subjects have left behind valuable records of their Indian experience, and until twenty years back it scarcely drew the attention of our old and experienced medical brethren. The literature on the subject of this disease is, therefore, still very meagre. The peculiar features of the disease are that its onset is insidious, that it usually prevails among infants under the age of one year, and that it seldom attacks children after they have passed the third year. The attack generally commences on the seventh or the eighth month, chiefly at the period of weaning or the mother's next conception. The children of some parents are particularly liable to the disease. In one family I have observed fourteen children of the same parents die one after the other. Cases of attacks in the third or fourth month, or even a few days immediately after birth of the child, have also been noted. Children in Calcutta, as well as in the districts of Bengal, whether malarious or non-malarious, are equally subject to it. It makes no difference between the children of the intemperate, the sober, or the teetotaler. It spares neither rich nor poor, though the well-fed children of the wealthy and the middle classes are more liable to it than the ill-fed children of the poorer class. Muhammadan and Eurasian children suffer less than the Hindus. Hardly any cases are seen among Europeans. Children who were never put, or put for a short time only, to the mother's breast, and fed with cow's, goat's, or ass's milk, or with different kinds of artificial food, enjoy no immunity from this disease. In those families where the disease prevailed I noticed a few children escape apparently, being nourished by healthy wet-nurses. When the disease was first noticed in Calcutta more cases were found among male than among female children; but of late the proportion seems to be less, and more female children than formerly now come under the notice of practitioners. Still, I shall point this out as a peculiar feature of the disease. Another peculiarity noticed is that the female children mostly attacked are usually the

first-born of the parents, and who are necessarily the objects of great care in a family. It has been observed that a female child escapes the malady after the successive deaths of several males that preceded her, though again the next male child succumbs to it. Children of very healthy parents are not exempt, and the disease appears to be quite unconnected with long-standing purulent discharge, scrofula, syphilis, malarious fever, or any chronic constitutional disease. In a family of several brothers living in the same house and under exactly the same conditions as regards food, it is rare to find the children of more than one of the brothers affected with the disease. In one family of three brothers living together under the Hindu family system one brother lost fourteen children, most of whom died about one year old, while the ten children of the other brothers remained quite healthy. This is the rule, but exceptional cases have come under observation in which the children of two brothers living together were affected by the disease, of the children of a brother and a sister living apart being attacked, and of the children of two sisters living in different families having suffered from the disease. It has also been noticed that in some cases the later children of some parents escape the disease after the earlier ones have, one and all, died of it. The enlargement of the liver is gradual, and is unattended with pain. The subsequent contraction is, however, rapid. The termination is generally fatal, death being mostly due to cholæmia. The disease runs its course in from three to twelve months, though one case has been known to end fatally within a fortnight of the attack, and the patients in two other cases which came under my observation lingered on for three years, and in these cases change of climate was tried in vain. In my experience, out of about 400 cases only 6 recovered. The diagnosis in the case of 3 is, however, open to doubt. Of the remaining 3, one child was sent out for change at the very commencement of the disease, and two recovered after the first symptoms had fully manifested themselves, but in none of these cases was there persistent jaundice, which in my experience is a fatal sign."

[Mr. Ghose then sketched the history of the recognition of the disease.]

"The disease may be defined now as a painless enlargement of the liver, hard and resistant to the feel, beginning with slight fever, occurring in children only, and terminating almost invariably in death. The onset of the disease is so very insidious that, as a rule, nothing is noticed by the parents until the liver has attained a considerable size. To my knowledge qualified medical men of considerable experience failed to detect the disease at the early stage in cases even of their own children. The early symptoms which attract the mother's notice are nausea, occasional vomiting, sallow complexion, warmth of hands and feet, and a certain amount of constipation with straining at stool. The child also refuses food, gets irritable, loses its cheerfulness, wishes to lie down on a damp ground, and gets a little fever towards night or early in the morning. Some thirst also is noticed, as the child looks wistfully at the sight of water and tries to lay hold of the vessel containing it. A slight icteric tinge is also sometimes observed in the eyes. When the child is brought under a physician's observation the liver appears enlarged, at times so considerably that it extends as far as the umbilicus or even beyond it to the iliac crest. The skin is harsh and dry, there is slight jaundice, marked constipation, with white stools and bile-stained urine. Ascites sometimes occurs, and later on jaundice becomes intense. With the appearance of this symptom contraction of the liver proceeds with extraordinary rapidity."

[Mr. Ghose next discussed the etiology, being of opinion that the disease always arose from improper feeding and mal-assimilation. He laid special stress upon the practice of mothers suckling their children when pregnant, and in the case of bottle-fed infants upon unwholesome milk. Irregularity in feeding and over-feeding were also cited. Predisposition was mentioned as being a deciding cause, and a number of cases quoted showing that the disease attacks the children of only one wife, while those of the others by the same husband enjoy a perfect immunity. Mr. Ghose then discussed the diagnosis, differential and otherwise, of this disease, pointing out that it was especially a disease of large towns. The duration was from three to nine months. The prognosis was very unfavourable, and treatment, whether dietetic or therapeutic, had been so far unsuccessful. For the pathology and morbid anatomy he referred to an article by Mr. J. B. Gibbons in the Scientific Memoirs, Part VI., and concluded by an appeal to the profession to try to discover some remedy, since there was nothing in the pathology to justify a hopeless prognosis.]

Biliary Cirrhosis in Children.

Mr. E. MACKENZIE, V.H.A.S, in a contribution under the above title, said:—"When I held charge of a dispensary in North Canara, a tract of country on the south-western coast of the Bombay Presidency, during the years from 1872 to 1880, I had extensive opportunity of seeing, and of verifying by post-mortem examinations, a fatal form of cirrhosis of the liver occurring in children from birth up to three or four years of age. About twenty applications were made to me every year, either for the purpose of eliciting an opinion or for treatment, or that post mortem I would remove the liver so that it might be destroyed separately from the body, under the superstitious belief that the diseased organ was a turtle[1] (a resemblance imparted to it by the shape and appearance of the organ, with the gall-bladder representing the head of the animal), endowed with distinct life, and needing a distinct process of cremation for its extinction. The disease was so well known and generally so easily recognised by the parents that once its existence was established they abandoned all hope of the child's life being spared. As this paper must necessarily be brief I will very concisely give the symptoms and post-mortem appearances observed by the naked eye and microscope; then refer to the cause as being very obscure and confessedly the weakest part of the paper; and, lastly, allude to the very unsatisfactory results achieved by treatment. If by putting forward this paper any good may result in elucidating the cause and the attainment of a more successful plan of treating the disease I should be very glad. The symptoms set in slowly with feverishness, high-coloured urine (staining the clothes a deep yellow), jaundice, anasarca, enlargement and induration of the liver and spleen with slight tenderness over these organs, liver enlargement downwards very considerable (involving both lobes equally), respiration hurried, prominent abdominal subcutaneous veins (especially on the right side), constipated bowels or scanty yellow fæcal motions, in a few cases hæmatemesis (in one leading to an abrupt fatal termination) and in others melæna, conjunctivæ bright saffron, and the eyelids and scrotum slimy and œdematous, the latter so intense sometimes that I have been tempted to puncture and let out the yellow-stained serum. The duration of the disease is from one to four months, in cases of shorter duration death being due to hæmatemesis or coma from blood poisoning. The urine is dark and scanty, often thick, generally free from albumen; the bile acids are absent, and there is no leucin or tyrosin to be detected in it. The tissues were deeply jaundiced, the liver was not shrunken or hobnailed, of increased dimensions generally, more solid and firm, both lobes equally affected, surface granular or papillated, of yellow colour from bile-staining, and with predominance of fibrous tissue. On section it is hard and tough, the lobules being almost obliterated from pressure of fibrous growth in the interlobular tissues, around the interlobular bile-ducts, and extending into the lobules. The capsule did not appear thickened, and, although smooth to the touch, presented a granular or nodulated appearance from irregular deposit of the newly formed fibrous tissue within the organ. The lobules were atrophied and surrounded by fibrous tissue, which had permeated the organ throughout, invading and destroying the cells, some of them entirely. The gall-bladder was almost empty, and there was bile-stained serous effusion into the peritoneal, pericardial, and pleural cavities, and into the subcutaneous cellular tissue. The kidneys generally were congested and softer than usual, the capsules peeling off easily; they were sometimes mottled, but not contracted. The spleen was enlarged and more friable than usual. With the opportunities afforded, and in the face of facts before me tending to lead to some certain deductions, I regret I cannot satisfactorily connect cause and effect. Malaria, syphilis, climate, diet, and habits of the people have been considered, but none can be pointed to conclusively as a cause. That the disease is more prevalent in Canara than in other districts of the Bombay Presidency I feel justified in asserting from the fact that, during a service of twenty-six years located in Bombay, Guzerat, Canara, Aden, Deccan, and Sindh, to one case that may have been treated for a malady resembling this in nature in other parts of the country, twenty or more have been seen in Canara during the same time. The disease has been confined to Brahmin

[1] After which it was called "Kurmrogh."

children, or in those approaching in habits and mode of living to the Brahmins, but why it should be peculiar to them is not clear. A single instance was not found in a Sudrá, Christian, or Mussulman, although all lived very much alike, partaking of very much the same kind of food, as rice, fish, pulse, vegetables, and condiments, excepting for a few sects of Brahmins (who formed only a fraction of the bulk of the population), who did not use fish. Looking upon infant feeding as a likely cause, there is nothing to show that the mode is more faulty in Canara than it is anywhere else. Here, too, the children have to battle against unsuitable food given them by their parents, like balls composed of grain flour and seasoned with aromatics kept prepared for weeks and used as required. The early administration of starch and the free use of spices and condiments at a tender age tend no doubt to set up fermentative changes in the stomach and become chemical irritants. Brahmin women in childbed adopt a diet which may conduce to the disease in the new-born infant, in whom it has been seen. They restrict themselves to the use of a strong decoction of black pepper to allay thirst, abstaining from liquid of any other kind, and as food use balls made up of boiled rice, *ghee*, and coarse sugar. Is it possible that the pepper here, acting through the mother's milk, might start irritation in the infant liver? Canara is a malarial district—heat, vegetation, and moisture tend to make it so in a pre-eminent degree; but the disease is as common on the sea coast as it is in the interior, where one would suppose malarial influences would be greater. Malaria, moreover, is not peculiar to Canara—then why should the disease be more prevalent there than in other parts of the country? Evidence pointing to syphilis as a cause is also wanting, and alcohol is out of the question in children so young. The people in those parts do not indulge to any excess in alcohol, tobacco, opium, or hemp, their favourite luxuries being *pán* and *supari* (betel leaf and areca nut), which can hardly have any connexion with the disease as a cause. The treatment has consisted of counter-irritation over the liver, the application of ung. pot. iodi. with ung. hydr., or tinct. iodi. Internally purgatives, calomel or hydr. c. creta, slowly administered and continued for some months; potas. iodid., ammon. chlorid., with acid. nitro-muriatic dil., syrup. ferri iodid., quinine, diuretics, and diaphoretics. All have failed."

Obituary.

JAMES LAWRENCE, M.D. ABERD., L.R.C.P. AND F.R.C.S. EDIN., J.P.

WE regret to announce the death of Dr. Lawrence, which took place on Jan. 10th, after a lingering illness of diabetic origin, at his residence in Cumnock, Ayrshire. Dr. Lawrence had an extensive local practice, which developed from his appointment many years ago to be surgeon to the Lugar Ironworks. He was born about 1828 in Kirriemuir, Forfarshire, and at an early age entered as a student in the Faculty of Arts in Aberdeen University. He subsequently attended the medical classes, and after the usual curriculum qualified as L.R.C.S. Edin. in 1849. Before long he commenced practice in Ayrshire, as already mentioned. The professional success which he obtained, together with his habits of studious diligence, induced him in 1860 to enlarge his medical qualifications by graduating as M.D. of his university and taking the diploma of L.R.C.P. Edin. In 1867 he became a Fellow of the Royal College of Surgeons of Edinburgh. Dr. Lawrence was very popular in the district, and his benevolent disposition endeared him to the poorer class of his patients. His death leaves a notable blank in local society.

A VACANCY in the office of obstetric physician to the Manchester Royal Infirmary caused by the retirement of Dr. Lloyd Roberts has been filled by the election of Dr. Archibald Donald. Dr. Donald's long connexion with St. Mary's Hospital, Manchester, is looked on by his colleagues as a guarantee that good and efficient teaching of the students will be forthcoming from him.

Medical News.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.—The following have passed the Final Examination:—

A. S. L. Burke, J. Cairns, M. A. Corcoran, J. H. J. Davys, M. Delaney, J. Fleming, W. A. Gordon, R. D. Jephson, T. O. Jordan, H. G. Martin, W. F. A. McCann, W. Stratton, and J. H. Walsh.

Passed in Medicine.—J. W. Griffin, E. C. Hodgson, and E. J. K. Hogan.

Passed in Surgery.—C. Cavenagh, J. T. Harold, E. C. Hodgson, E. J. K. Hogan, H. T. J. Kennedy, and J. F. Sheppard.

Passed in Ophthalmology.—C. Cavenagh, J. T. Harold, E. J. K. Hogan, H. T. J. Kennedy, J. F. Sheppard, and H. E. Stone.

Passed in Midwifery.—C. Cavenagh, J. T. Harold, and H. T. J. Kennedy.

Passed in Hygiene &c.—J. J. Dolan, J. W. Griffin, and E. C. Hodgson.

THE seventy-first annual meeting of the Glasgow Eye Infirmary was held on Jan. 23rd, Sir James King, Bart., presiding. The total number of new cases during 1894 was 15 267; the in-patients amounted to 1419. A large proportion of the cases were the result of accidents in factories and mechanical works, and some arose from mishaps with bottles of aerated water. The treasurer's statement was satisfactory, the ordinary income being £300 in excess of the expenditure.

THE SANITARY INSTITUTE.—The nineteenth London course of lectures and demonstrations for sanitary officers commenced on Friday, Feb. 1st, at the Parkes Museum, Margaret-street, W. The first seven lectures deal principally with Physics and Chemistry, and serve as an introduction to the main course. Dr. R. T. Hewlett will lecture on Elementary Bacteriology on Tuesday, Feb. 12th. Among the names of those who will deliver the more advanced lectures on subjects pertaining to public health are the following: Sir Douglas Galton, Dr. Herbert Manley, Professor Wynter Blyth, Dr. J. F. J. Sykes, Dr. Arthur Newsholme, Professor Bostock Hill, Dr. Louis Parkes, Dr. Edward Seaton, Professor Corfield, and Dr. L. W. Darra Mair. Tuesdays and Fridays are appropriated to the lectures, and Wednesdays and Saturdays to demonstrations and inspections of various trades and buildings.

MANCHESTER ROYAL EYE HOSPITAL.—The annual meeting of this hospital was held on Jan. 23rd in the Lord Mayor's Parlour at the town hall, Manchester, Mr. David Bannerman presiding in the absence of the Lord Mayor. The report for 1894, which was the seventy-ninth year of the hospital, showed that the total out-patients numbered 21,575 and the in-patients 1336. The latter remained in hospital twenty-one days on an average. The medical staff considered it necessary, on account of the great increase among the out-patients, that the two hospitals—in St John-street and Oxford-street—should both be open every day at the same time, which would involve the appointment of two additional officers—a house surgeon and a dispenser. The financial position of the institution was satisfactory, the income having exceeded the expenditure by £760. A legacy of £2500 has been left to the hospital by the late Mr. Samuel Weston of Manchester.

WE have received the fifteenth annual report (1894) of the Workhouse Infirmary Nursing Association. The objects of the association are threefold: to raise the standard of public opinion on the whole question of workhouse nursing; to secure the appointment of trained ladies as matrons in all separate infirmaries; and to train and supply nurses to workhouse infirmaries in London and the provinces. H.R.H. Princess Christian is patroness and H.R.H. the Duchess of Teck is president. During 1894 the association supplied eighty-two nurses to thirty-six union infirmaries, and appointed superintendents of nurses to Plymouth Workhouse Infirmary and to Barton Regis Infirmary. At Bedford Workhouse a nurse sent by the association was dismissed by the guardians without explanation. In the result much local feeling was excited, the President of the Local Government Board was questioned in the House of Commons, and at the next parochial election all the guardians, except the two who had opposed the dismissal of the nurse, were rejected by large majorities.

THE Hospital for Infectious Diseases, newly erected by the corporation of Bangor, was on Jan. 23rd formally inaugurated by the Mayoress (Mrs. Langford Jones), who opened the door of the principal ward with a silver key and declared the building open for the reception of patients. A large company were present, including Lord and Lady Penrhyn and the Bishop of Bangor. The Mayor of Bangor (Alderman R. Langford Jones, M.R.C.S., chairman of the Sanitary Committee), in the course of an address, stated that patients would be admitted without payment.

MANCHESTER MEDICO-ETHICAL ASSOCIATION.—At the annual meeting, held on Jan. 25th, 1895, the following gentlemen were elected as office-bearers and committee for the year 1895:—President: Dr. S. Woodcock. Vice-Presidents: Dr. J. B. Brierley, Dr. C. G. L. Skinner, Dr. A. Stewart, Mr. A. W. Stocks. Treasurer: Dr. D. Lloyd Roberts. Secretaries: Dr. F. H. Collins, Mr. John Ferguson. Committee: Dr. E. V. Brown, Mr. F. J. W. Cox, Mr. Richard J. Dearden, Mr. Joseph Foster, Dr. Alfred Godson, Dr. A. Helme, Dr. James Holmes, Mr. Walter E. Husband, Dr. E. T. Milner, Dr. W. E. S. Scott, Mr. W. Thorburn, and Dr. J. Watson.

PRESENTATION.—On Tuesday, Jan. 22nd, at a banquet given to Mr. W. P. Bothamley upon the occasion of his resignation of the post of medical officer of the eighth district of the Hackney Union, a very handsome silver fruit and flower stand was presented to him by Mr. J. Owen-Perry, the clerk to the guardians, on behalf of the officers of the Hackney Union, in the presence of a large company. With reference to this presentation the clerk to the guardians writes to us as follows: "By the resignation of Mr. Bothamley the guardians have lost the services of a capable and zealous officer and the sick poor a very kind and sympathetic medical officer."

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—At a meeting of this society, held on Jan. 17th, Dr. Porter in the chair, Dr. Arthur Hall showed (1) A Case of Acute Myelitis with almost Complete Paraplegia, Analgesia, Acute Bed-sores, loss of knee-jerks and plantar reflexes in a girl aged twelve years, terminating in complete recovery; (2) a case of Aneurysm of Arch of Aorta just above the root of the left lung in a woman aged forty-five years; (3) a case of Tertiary Syphilitic Eruption on the face and Periosteal Swelling of the Tibia in a young married woman with no history of syphilis; (4) a case of Tuberculous Eruption of the Skin. Dr. Porter showed a specimen of a Cystic Tumour of right Kidney which had been aspirated during life and the fluid from which contained abundant crystals of cholesterin and blood débris. From a microscopic section it appeared to be of a sarcomatous nature. Mr. Pye-Smith showed a Zwancke's Pessary encrusted with phosphates, which he had removed from a woman aged seventy-three years who had worn it continuously for over twelve years. It had ulcerated through the bladder and also through the posterior vaginal wall, but not into the rectum. It was easily removed after dividing it with a compound bone-cutting forceps, but the patient sank and died twelve days afterwards. Mr. Pye-Smith also showed a Cirrhosed Liver removed from the body of a child aged twenty-two months. There was no alcoholic history. The other viscera were healthy. The liver weighed under twelve ounces and presented a well-marked hobnail appearance. Microscopic sections confirmed the diagnosis. Dr. Wilkinson showed Hydatid Cysts of the Liver and Primary Sarcoma of the Kidney with Secondary Growth causing Fracture of the Femur. Mr. Cayley read brief notes of a case of Convulsions probably due to Poisoning by Camphor.

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London, W.C.

Bread, Bakehouses, and Bacteria. Reprints of various papers. By F. J. Waldo, M.A., M.D.Cantab., and David Walsh, M.B., C.M.Edin. 1895. pp. 65. Price 2s.

On Some Symptoms which Simulate Disease of the Pelvic Organs in Women. By A. Rabagliati, M.A., F.R.C.S.Edin. 1895. pp. 77. Price 3s. 6d.

CHURCHILL, J. & A., New Burlington-street, London.

The Galenical Preparations of the British Pharmacopœia. By G. E. Hawthorne, M.B. 1895. pp. 118. Price 4s. 6d.

FISCHER, GUSTAV, Jena.

Elektrophysiologie. Von W. Biedermann. Erste Abtheilung. 1895. pp. 440.

Lehrbuch der Allgemeinen und Speciellen Pathologischen Anatomie. Von Dr. Ernst Ziegler. Erster Band: Allgemeine Pathologie. 1895. pp. 746.

Allgemeine Physiologie. Von Max Verworn. 1895. pp. 584.

GALE & POLDEN, Amen-corner, Paternoster-row, London, E.C.

Gale and Polden's Military Series. Notes on Medical Services in War. By W. H. McNamara. pp. 46. Price 1s.

LEWIS, H. K., Gower-street, London, W.C.

A Handbook of the Diseases of the Eye and their Treatment. By Henry R. Swanzy, A.M., M.B., F.R.C.S.I. Fifth Edition. Illustrated. Edited by Louis Werner, M.B., B.Ch. 1895. pp. 582. Price 10s. 6d.

PHILIP, GEO. & SON, Fleet-street, London, E.C.

How to Live in Tropical Africa. By J. Murray, M.D. Illustrated. 1895. pp. 252. Price 5s. net.

REDMAN, F. S., Adam-street, Strand, London.

On Respiration in Singing. By Dr. Joal. Translated and edited by R. A. Wolfenden, M.D.Cantab. Illustrated. 1895. pp. 208. Price 5s.

SAMPSON LOW, MARSTON, & Co., Fetter-lane, Fleet-street, London.

Colour Vision. Being the Tyndall Lectures delivered in 1894 at the Royal Institution. By Captain W. de W. Abney, C.B., D.C.L., F.R.S. Illustrated. 1895. pp. 231. Price 12s. 6d.

SIMPKIN MARSHALL & Co., London.

The Last Abbot of Glastonbury and his Companies: an Historical Sketch. By Francis A. Gasquet, D.D. 1895. pp. 195. Price 7s. 6d. net.

SMITH, ELDER, & Co., Waterloo-place, Regent's-street, London.

Transactions of the Pathological Society of London. Vol. xlv. 1894.

WILLIAMS & NORGATE, Henrietta-street, Covent Garden, London.

Bad Air and Bad Health. By Harold Wager and A. Herbert. 1894. pp. 98. Price, cloth cover, 1s.; paper cover, 6d.

The Droitwich Brine Baths as Therapeutic Agents in various Diseases; by W. H. Tomlins, L.R.C.P.Lond., M.R.C.S. (H. K. Lewis, London, 1895); price 1s.—The Psychological Review; January, 1895 (Macmillan & Co., London).—The Quarterly Medical Journal for Yorkshire and adjoining Counties; January, 1895 (John Bale & Son, London, and Pawson & Brailsford, Sheffield).—London Temperance Hospital Registrar's Report of the Medical, Surgical, and Ophthalmic Cases Admitted during the Year 1893; by L. Wilde, M.D., D.P.H. (J. Vincent & Son, Little Britain, London, E.C.).—Die Syringomyelie: eine Monographie; von Dr. H. Schlesinger (F. Deuticke, Leipzig und Wien, 1895).—Schemata zum Einzeichnen von Gehirnbefunden; von Drs. A. Kolisko und E. Redlich, in Wien (Franz Deuticke, Leipzig und Wien, 1895).—On a Form of Congenital Thoracic Deformity; by John Thomson, M.D., F.R.C.P. Edin. (reprint from "Teratologia: a Quarterly Journal of Ante-natal Pathology," January, 1895).—Autobiography, James Beart Simonds; reprint from the "Veterinarian" (Adlard & Son, Bartholomew-close, London, 1894).—The Local Government Annual: An Official Handbook, 1895; fourth year of publication (S. Edgecumbe-Rogers, Dorset House, Dorset-street, Fleet-street, London); price 1s. 6d.—Hand-Atlas der Hirn- und Rückenmarksnerven; von Professor Dr. C. Hasse (J. F. Bergmann, Wiesbaden, 1895).—Ueberschau über den gegenwärtigen Stand der Ohrenheilkunde; von Dr. Fried. Bezold (J. F. Bergmann, Wiesbaden, 1895).—La Fièvre à Sulfate de Quinine; démembrement de la Malaria; par M. le Dr. Alcide Treille (Chas. Zamith et Cie., Alger, 1894).—The Royal Natural History, vol. iii., part 15 (F. Warne & Co., Bedford-street, Strand, London); price 1s. net.—Piloroplastica: storia di un Caso Clinico e Considerazioni; del Dr. L. Corazza (G. Franchini, Verona, 1894).—Archivos de Ginecopatia Obstetricia y Pediatria, 31 de Agosto de 1894 (Calle de Vergara, Barcelona).—The Report of the Department of Pathology of University College, London, December, 1894, vol. iv. (Langley & Son, George-street, London, N.W.)—Local Government Act, 1894, and Public Health Act, 1875: Model Standing Orders for District Councils, together with the Statutory provisions controlling their proceedings. Also, Local Government Act, 1894: Model Standing Orders for Parish Councils (Knight & Co., Fleet-street, London, 1894).—Sell's Directory of Registered Telegraphic Addresses for 1895 (Henry Sell, Fleet-street, London).—The Education Acts, and How to Deal with Ragged and Neglected Children (South Wales Printing Works, Cardiff, 1895).—Edinburgh Medical Missionary Society; quarterly paper, No. 3, vol. vii. (The Edinburgh Medical Missionary Society, George-street, Edinburgh).—How to Nurse in our own Homes; by A. M. Alexander (Wells Gardner, Darton & Co., Paternoster-buildings, London).—Magazines for February; Pall Mall Magazine.—English Illustrated Magazine.—Illustrated Modern Art and Literature, No. 3.—Boy's Own Paper.—Girl's Own Paper.—Leisure Hour.—Sunday at Home.—Knowledge.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.

BAILEY, W. H., M.B. Lond., M.R.C.S., D.P.H., has been appointed Medical Officer for the East Dulwich Sanitary District of St. Giles' Parish of Camberwell.

BAYNES, JAMES, has been appointed Public Analyst for the East Riding of Yorkshire.

COATES, C. M., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Creech St. Michael Sanitary District of the Taunton Union

DAVIDSON, A., M.D., F.R.C.P. Lond., has been appointed Honorary Physician to the Liverpool Children's Infirmary.

DEAN, GEORGE, M.B., C.M. Aberd., has been appointed Pathologist to the Sick Children's Hospital, Aberdeen.

DEVANE, THOS. F., L.R.C.P. Edin., L.R.C.S. Edin., L.F.P. & S. Glasg., has been appointed Medical Officer to the Beckenham and Penge Benefit Society.

DIMMOCK, A. F., M.D. Durh., M.R.C.S., has been reappointed Honorary Medical Officer to the Harrogate Cottage Hospital.

DOBIE, W. M., M.D. Edin., M.R.C.S., has been appointed Honorary Consulting Physician to the Chester General Infirmary.

DONALD, ARCHIBALD, M.D., C.M., M.R.C.P. Lond., M.R.C.S., has been appointed Obstetric Physician to the Manchester Royal Infirmary, vice Roberts, retired.

ELLIOTT, J., M.D. Lond., B.Sc., M.R.C.P., F.R.C.S., has been appointed Honorary Physician to the Chester Infirmary, vice Dobie, resigned.

FLETCHER, J. H., M.R.C.S., L.R.C.P., has been appointed Junior Assistant House Surgeon to the Sheffield Public Hospital and Dispensary.

GUNN, F. W., M.D., B.S., L.S.Sc. Durh., M.R.C.S., L.R.C.P., L.S.A., A.K.C., has been appointed Medical Officer to No. 4 District, Morpeth Union.

HENRY, WALLACE R., M.B., B.Ch. (Dub. Univ.), has been appointed Senior House Surgeon to the Birmingham and Midland Eye Hospital.

HOBSON, LEWIS J., M.D. Lond., B.S., F.R.C.S. Eng., has been re-appointed Honorary Consulting Physician to the Royal Bath Hospital and Rawson Convalescent Home, Harrogate.

KEITH, W. R., M.B., M.S. Aberd., has been appointed Assistant Medical Officer for the Workhouse of the Aston Union.

LEIGH, WM. W., L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer for the Llanfabon Sanitary District of the Merthyr Union

MAPPLEBECK, W., L.D.S., R.C.S. Irel., has been reappointed Honorary Dental Surgeon to the Liverpool Children's Infirmary.

MARSH, N. P., M.B. Lond., M.R.C.S., has been reappointed Honorary Physician to the Liverpool Children's Infirmary.

MARTIN, JAMES P., M.R.C.S. Eng., has been appointed Medical Officer to the Box and Colerne Branches of the Wilts Friendly Society vice T. F. Snow, deceased.

MURRAY, R. W., L.R.C.P. Lond., F.R.C.S., has been reappointed Honorary Surgeon to the Liverpool Children's Infirmary.

OZANNE, F. N., L.R.C.P. Lond., M.R.C.S., has been reappointed Honorary Medical Officer to the Harrogate Cottage Hospital.

STOKER, J. W., L.R.C.P., L.R.C.S. Edin., L.F.P.S., L.M. Glasg., has been appointed Medical Officer for the No. 6 Sanitary District of the Romford Union, vice Gibbens.

VOELCKER, JOHN A., has been reappointed a District Agricultural Analyst, East Riding, Yorkshire.

WATTS, F., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the No. 3 Sanitary District of the Yeovil Union.

WEBER, F., M.R.C.P., has been appointed Hon. Physician to the German Hospital, Dalston.

WILLIAMS, N., M.B. Cantab., M.R.C.S., has been reappointed Honorary Medical Officer to the Harrogate Cottage Hospital.

WOOD, R. E., L.D.S., R.C.S., has been reappointed Surgeon Dentist to the Harrogate Cottage Hospital.

WRIDE, F. GEO., L.R.C.P. Irel., M.R.C.S., has been appointed Health Officer for the town of Warrnambool, Victoria, Australia, vice Fleetwood

YEARSLEY, P. MACLEOD, F.R.C.S. Eng., has been appointed Clinical Assistant to the Ear Department of the Westminster Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRMINGHAM CITY ASYLUM, Rubery-hill, near Bromsgrove.—Junior Assistant Medical Officer. Salary £80 per annum, with board, &c.

CANCER HOSPITAL (Free), Fulham-road, S.W.—House Surgeon for six months. Salary at the rate of £50 per annum, with board and residence.

CENTRAL LONDON OPHTHALMIC HOSPITAL, 238A, Gray's-inn-road, W.C.—House Surgeon. Rooms, coals, and light provided.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Anæsthetist. A small honorarium given. Also Resident Medical Officer, for twelve months. Salary £60 per annum, with board, lodging, and washing.

DERBYSHIRE ROYAL INFIRMARY, Derby.—One Honorary Physician One Honorary Surgeon. One Honorary Consulting Dental Surgeon

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—House Surgeon. Salary £100 per annum, with furnished apartments, board and washing.

DEWSBURY AND DISTRICT INFIRMARY, Dewsbury.—House Surgeon. Salary £80, with board and residence.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer, for one year. Salary £80 per annum, with board and lodging.

HOSPITAL FOR WOMEN AND CHILDREN, Leeds.—House Surgeon for twelve months. Salary £75 per annum.

KENT AND CANTERBURY HOSPITAL.—Surgeon.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House Surgeon for six months. Board and lodging provided.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, Shoreditch, N.E.—Junior House Physician for six months. Board and lodging (including washing) provided.

PARISH OF SAINT PANCRAS.—Assistant Medical Superintendent of St. Pancras (separate) Infirmary, Dartmouth-park-hill, N., for two years. Salary, £120 for the first year and £135 for the second year, with apartments, rations, and washing. Applications to the Clerk of the Guardians, Guardians' Offices, Vestry-hall, St. Pancras, London, N.W.

RADCLIFFE INFIRMARY, Oxford.—House Surgeon for six months. Salary at the rate of £80 a year, with board, lodging, and washing.

RIPON DISPENSARY AND COTTAGE HOSPITAL, Ripon.—Resident House Surgeon and Dispenser, unmarried. Salary £70 per annum, with board and lodging.

ST. PETER'S HOSPITAL, Henrietta-street, Covent-garden, London, W.C.—House Surgeon for six months. Salary at the rate of 50 guineas a year, with board, lodging, washing, and an allowance for wine, &c.

SALOP INFIRMARY, Shrewsbury.—House Surgeon. Salary £100 per annum, with board and residence.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—House Surgeon for two years. Salary £100 per annum, with board, lodging, and washing.

TAUNTON AND SOMERSET HOSPITAL, Taunton.—Honorary Surgeon.

THROAT HOSPITAL, Golden-square, London.—Clinical Assistants.

Births, Marriages, and Deaths.

BIRTHS.

BARTRAM.—On Jan. 27th, the wife of A. E. Bartram, L.R.C.S., L.R.C.P., L.M., of Northallerton, of a daughter.

BLIGH.—On Dec. 30th, at The Garlands, Caterham Valley, Lilian Josephine (*née* Lafone, L.O.S.), the wife of William Bligh, M.D., B.S. Lond., &c., of twins, boy and girl.

CHAMBERS.—On Jan. 28th, at The Priory, Roehampton, S.W., the wife of James Chambers, M.D., of a daughter.

FIELD.—On Jan. 21st, at Ladbroke-grove, W., the wife of A. Theodore Field, M.R.C.S., of a son.

REECE.—On Jan. 28th, at 31, Holland-villas-road, Kensington, W., the wife of Richard J. Reece, M.D., of a son.

MARRIAGES.

BROATCH—JONES.—On Jan. 25th, at St. Peter's Church, Bayswater, George T. Broatch, M.B., surgeon Royal Navy, son of Robert Broatch, Esq., of Edinburgh, to Mary Willis (May), elder daughter of the late George Jones, Esq., of Aughton, Lancashire.

GIBSON—COLSON.—On Jan. 30th, at St. Saviour's, Paddington, Albert Gibson, M.B., C.M., Crouch-end, N., to Lilian Mary, elder daughter of the late Rev. H. Colson, Harrow House, Harrow.

SYKES—HARVEY.—On Jan. 23rd, at Roupell-park Wesleyan Church, Tulse-hill, J. Herbert Sykes, M.R.C.S. Eng., L.R.C.P. Lond., of Southport, to Alice, fourth daughter of John Harvey, Sunnyside, Lancaster-road, West Dulwich.

DEATHS.

SECCOMBE.—On Jan. 27th, at Terrington Lodge, King's Lynn, John Thomas Seccombe, M.D., J.P., in his 61st year.

SHEPPARD.—On Jan. 28th, at Guilford-street, Russell-square, Joseph Brigstoke Sheppard, LL.D., M.R.C.S., of the Ethelbert-road, Canterbury, aged 67.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.).

TUESDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Gt. Northern Central (2.30 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Soho-square (2 P.M.), North West London (2 P.M.).

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.).

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY.—MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Frederick Roberts: The Combinations of Morbid Conditions of the Chest. (Second Lettsomian Lecture.)

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-sq., W.C.).—8 P.M. Mr. Howard Mummery: Photo-Micrography and its Application to the Study of Dental Histology.—Mr. W. E. Harding: On Perchloride of Mercury in the Treatment of Pulpless Teeth.—Mr. A. R. Colyer: A Case of Retained First Permanent Molar.

TUESDAY.—PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. J. W. Washbourn: Researches on the Pneumococcus, with special reference to Immunity (Part I.).—Dr. A. E. Wright: Notes on the Bacteriology and Pathological Chemistry of Pneumonia.

WEDNESDAY.—OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. Remfry, Dr. Macnaughton-Jones, and Mr. Butler-Smythe. Dr. Probyn-Williams and Mr. Lennard Cutler: Some Observations on the Temperature, Pulse, and Respiration during Labour and the Lying-in. Annual Meeting. Election of Officers and Council. The President (Dr. Herman) will deliver the Annual Address.

THURSDAY.—HARVEIAN SOCIETY.—8.30 P.M. Mr. Frederick Treves: A Series of Cases of Removal of the Appendix for Relapsing Typhlitis.

FRIDAY.—CLINICAL SOCIETY OF LONDON.—8.30 P.M.—Clinical Cases only will be shown. Each member will receive a card of agenda before the meeting.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY.—LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital, Moorfields, 1 P.M., Mr. R. M. Gunn: Clinical Examination of the Eye.—London Throat Hospital, Gt. Portland-st., W., 8 P.M., Mr. W. R. H. Stewart: Examination of the Ear.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

TUESDAY.—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Percy Smith: Hypochondriasis.

ROYAL INSTITUTION.—3 P.M. Prof. Charles Stewart: The Internal Framework of Plants and Animals. (IV.)

CENTRAL LONDON THROAT AND EAR HOSPITAL.—4.30 P.M. Dr. Dundas Grant: The Diagnosis of Diseases causing a Discharge from the Ear.

SOCIETY OF ARTS.—8 P.M. Mr. Gleeson White: Drawing for Process Reproduction.

WEDNESDAY.—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Beevor.

LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital, Moorfields, 8 P.M., Mr. A. Q. Silcock: Choroidal Affections, with Cases.—Hospital for Skin Diseases, Blackfriars, 1 P.M., Dr. Payne: Erythema, its Causes and Varieties.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-sq., W.C.).—5 P.M. Dr. Morgan Dockrell: Psoriasis and Seborrhœic Dermatitis.

WEST LONDON HOSPITAL (Hammersmith-rd., W.).—5 P.M. Mr. Paget: The Surgery of the Chest. (Post-graduate Lecture.)

SOCIETY OF ARTS.—8 P.M. Mr. Geoffrey Drage: The Labour Question in the Colonies and Foreign Countries.

THURSDAY.—ROYAL INSTITUTION.—3 P.M. Mr. W. S. Lilly: George Eliot, the Humourist as Poet.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Gt. Ormond-st., 3.30 P.M., Mr. John H. Morgan: Congenital Defects in Lower Extremities.—National Hospital for the Paralysed, Bloomsbury, 2 P.M., Dr. Tooth: Anatomy of Spinal Cord. Central London Sick Asylum, Cleveland-st., W., 5.30 P.M., Mr. John Hopkins: Cases in the Wards.

FRIDAY.—ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—11 to 1 P.M. Dr. Barratt: The Bacteriology of Skin Disease.

LONDON POST-GRADUATE COURSE.—Bacteriological Laboratory, King's College, 3 to 5 P.M., Prof. Crookshank: The Microscope and Methods of Cultivation.

ROYAL INSTITUTION.—9 P.M. Dr. G. Sims Woodhead: The Antitoxin Serum Treatment of Diphtheria.

SATURDAY.—ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—11 to 1 P.M. Dr. Barratt: The Bacteriology of Skin Disease. 5 P.M. Dr. M. Dockrell: Diseases of Sebaceous Glands.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 11 A.M., Dr. Hyslop: Melancholia.

ROYAL INSTITUTION.—3 P.M. Sir Alexander Campbell Mackenzie: Hansel und Gretel (with Musical Illustrations).

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Jan. 31st, 1895.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Jan. 25	29·49	N.W.	38	36	53	41	36	0·16	Cloudy
" 26	29·73	N.W.	31	Fzn.	48	36	28	0·04	Cloudy
" 27	29·74	N.W.	27	Fzn.	44	33	26	...	Cloudy
" 28	29·96	N.W.	29	Fzn.	43	33	27	0·09	Snowing
" 29	30·23	W.	25	Fzn.	35	33	22	...	Overcast
" 30	30·43	N.E.	25	Fzn.	51	35	24	...	Snowing
" 31	30·21	N.E.	31	Fzn.	56	35	25	...	Bright

Notes, Short Comments & Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET should be addressed "To the Manager."

We cannot undertake to return MSS. not used.

MANAGER'S NOTICE.

THE INDEX TO THE LANCET.

THE Index for the last half-year was published in our issue of Dec. 29th, which completed the second volume of the year 1894. Those of our subscribers who may wish to be supplied with loose copies can obtain the same (without extra charge) on making application to the Manager.

ALLEGED DETERIORATION OF CORKS.

WE have received a letter from a correspondent complaining in unqualified terms of the present cork. He finds that although willing to pay a fair price he gets a dry, brittle, worm-eaten article, too short, and the same size all the way down, "as if cut off a stick." We cannot inform him if his strictures are generally endorsed in the profession, but probably not, as no previous complaints have reached us.

G.—Our correspondent may notify to the patients of his predecessor in the practice that he has succeeded to the practice; but he must not send circulars to the patients of other medical practitioners or distribute testimonials among them.

Mr. S. Wesley Wilson.—Our correspondent's letter so clearly imputes corrupt motives that he will not be surprised that we do not print it.

"A TAPEWORM IN THE URETHRA."

To the Editors of THE LANCET.

SIRS,—The interesting note under the above heading in THE LANCET of Jan. 26th (p. 265) reminds me of a very similar case which I observed some eight years ago at Guy's Hospital. I then happened to see a segment three inches long of tænia solium wriggle through the meatus urinarius of a patient who was under the care of Mr. Arthur Durham. An explanation of this very unusual occurrence was easily found in the fact that the segment of tapeworm must have found its way into the urethra through a fistulous opening which the patient possessed between the neck of the bladder and the rectum. In connexion with Dr. Axel Spoof's case no mention is made as to any communication between the alimentary and the urinary tract. Without such explanation the facts published seem to me unintelligible.

I am, Sirs, yours faithfully,

Wood Green, N., Jan. 29th, 1895. T. SLATER JONES.

CERTIFICATION OF MIDWIVES.

A CORRESPONDENT writes to us as follows:—

"Owing to an unfortunate death of a woman in labour under the care of an uncertificated midwife the island of Guernsey authorities are about to pass an "Ordinance" requiring that every woman practising as a midwife should provide a certificate of having received the necessary education for the purpose. Will you kindly inform me where to get such information as would enable the authorities to frame a law; also where certificated midwives are to be obtained; and also whether there is a law controlling midwives in France, &c.?"

*** In France midwives practise under the provisions of the Medical Law of Nov. 30th, 1892. They must be provided with a diploma issued by the Government after examination. A diploma of some sort is required by any woman practising midwifery in most of the States of Europe—e.g., Spain, Germany, Austria, Hungary, Italy, Norway, Sweden, Denmark, and Russia all impose some condition of this sort. Several States in America—e.g., Michigan, Minnesota, and New Jersey—have similar laws. A scheme of compulsory registration for midwives in the United Kingdom was formulated by a Committee of the House of Commons in 1893, and is embodied in a Parliamentary paper (No. 367) ordered by the House of Commons to be printed on Aug. 8th in that year. This paper may be obtained from Messrs. Eyre and Spottiswoode, or any other agents for the sale of Parliamentary papers.—ED. L.

Dr. Weston.—Our correspondent raises the very large question as to whether all medical officers of health *ought* to give their whole time to the duties of their office. One aspect of this question will be found in the next instalment of our special articles upon difficulties under the Infectious Disease (Notification) Act. The question as a whole cannot be answered yet; so many special circumstances have to be taken into consideration.

F.R.C.S.I.—The association between pleurisy with effusion and phthisis has been noticed especially by French writers, some of whom go so far as to claim a tuberculous origin for most such pleuritic cases. We shall, however, be pleased to receive records of the cases mentioned by our correspondent.

Medicus.—"Outlines of Practical Histology," by Professor Stirling (London, Charles Griffin and Co.).

"SULPHUR *v.* ANTITOXIN IN THE TREATMENT OF DIPHTHERIA."

To the Editors of THE LANCET.

SIRS,—Mr. Hawkins Cuthbert of Aberdovey, in THE LANCET of Jan. 26th, draws attention to the use of sulphur *v.* antitoxin in the treatment of diphtheria. There is no denying the fact that sulphur is a most excellent remedy in all ulcerative throat affections, but there is as little doubt that it is not a specific for diphtheria. I have used sulphur dusting for years in diphtheria, and still use it conjoined with antitoxin. A month ago I had a case of diphtheria treated for three days with sulphur, but all the time the symptoms continued to become more grave. Antitoxin was injected, and in twenty-four hours improvement commenced and continued, the patient making a good recovery. It is impossible to say what might have happened had no antitoxin been used; but coincidences are not so common. It would be very wrong of those of us who believe in sulphur to become faddists by sticking to it in face of the evidence which has been submitted to us. It still remains a very important accessory in the treatment of diphtheria.

I am, Sirs, yours faithfully,

Hawick, Jan. 26th, 1895. JOHN R. HAMILTON, M.D.

J. J., M.D. & J.P. (Edinburgh) is thanked for his communication. We are afraid, however, that its insertion would not be likely to answer any practical purpose, as the large majority of the department are strongly opposed to our correspondent's views in regard to the points he has put forward and advocated.

Mr. A. F. Merton.—The particulars required could only be obtained by application to the officers of the various general and special London hospitals, and would then only be given to persons proving that they desired to obtain the records for ends likely to be serviceable to medical knowledge.

Dental Pupil.—We are not aware that the articles have been republished in pamphlet form; our correspondent is advised to apply to the journal where they originally appeared.

Perplexed is bound by the bond.

"MEDICAL ELECTRICITY."

To the Editors of THE LANCET.

SIRS,—Be pleased to inform me as to the best practical book on medical electricity for the use of a general practitioner, and much oblige, Yours faithfully,

Jan. 29th, 1895. ELECTRIC.

*** The best and simplest book upon the subject is "Medical Electricity," by Dr. H. Lewis Jones and the late Dr. Steavenson.—ED. L.

MEDICAL MEN'S FEES AND THE CORK MOVEMENT.

A CORRESPONDENT of the *Irish Times*, referring to our remark that families with a joint income of £200 or over should make it a point of honour to have a private medical man and to pay him adequate fees, asks for a definition of the expression "adequate fees" and invites the Cork medical men to state what their charges are. This is not altogether an unreasonable request. Medical men are known to charge their patients according to their means, either roughly judged by their house rent or by those more refined indications of circumstance with which few are more familiar than they. It is for the men of Cork to judge how far, as a part of this controversy, it would be possible for them to commence a scale of professional charges, as has been done in other places. It would tend to correct an impression that they are higher than in other parts of the United Kingdom, and would, we feel sure, show that they are as practical in meeting the case of families with incomes over £200 a year as in meeting the case of club patients.

Inquirer.—Our correspondent's duty is to preserve the life of his patient, and to reserve professional secrets for his own use to this end. He is not called on to be the accuser of his patient, even though she be a member of the same church. The authorities of the church must act on their own responsibility and on other evidence than his. No medical man would consider it his duty to report unsuspected sin in a patient of which he was cognisant in a professional way to ecclesiastical authorities. *A fortiori* it is not his duty where other evidence is available and actually forthcoming. As a member of the church he should abstain from all action and advice, just as a member of a court who has special reasons for not discharging any judicial or witnessing function.

Rev. F. J. Muspratt.—We are obliged for our correspondent's letter; but we are sure that the practitioner eulogised therein would not care for a dissemination of his praises that is coupled with a reflection upon the skill of his medical neighbours.

"ON THE OCCURRENCE OF DIPHTHERITIC PARALYSIS WITHOUT PREVIOUS FAUCIAL AFFECTION."

To the Editors of THE LANCET.

SIRS,—In the letter I wrote to you for the purpose of pointing out the mistake made in the spelling of my name by Dr. Leonard G. Guthrie, and which you did me the kindness to insert, believe me when I explain that it was my ambiguous and misleading composition, and not at all my intention, that caused Dr. Guthrie to appear, instead of myself, as the one indifferent to the case. My feelings and sentiments to Dr. Guthrie are quite the opposite of this, I can assure you, and I thank you for giving me an opportunity of saying so.

I am, Sirs, yours truly,

Stockton-on-Tees, Jan. 29th, 1895. A. ROSS PATERSON.

Mr. John Galloway.—1. We think that the first consultant sent for was entitled to two guineas.—2. We cannot see the claim of the second consultant to a fee who was not sent for either by the patient or the practitioner in attendance.—3. Our correspondent should call on the first consultant and discuss the matter in a friendly spirit. The facts seem very simple as given in his letter and should occasion no dispute.

WANTED, A LANTERN AND SLIDES.

To the Editors of THE LANCET.

SIRS,—Will any of your readers kindly inform me if a lantern with suitable slides to illustrate a popular physiological lecture could be hired at a reasonable rate? If so, of whom? The lecture is intended to embrace some of the salient points of the physiology of the whole body. I am, Sirs, yours truly,

Jan. 28th, 1895. SUBSCRIBER.

During the week marked copies of the following newspapers have been received:—*Hereford Express, Birmingham Post, Newcastle Journal, Stroud News, Sussex Daily News, Bedford Standard, Eastbourne Gazette, Banffshire Advertiser, Manchester Courier, Irish Times, Bridgwater Independent, Redcar News, Leicester Post, Congleton Chronicle, Cork Examiner, Kilkenny Journal, Daily Graphic, Daily News, The Times, Weekly Free Press and Aberdeen Herald, West Middlesex Standard, Local Government Chronicle, Sanitary Record, Reading Mercury, City Press, Leeds Mercury, Times of India, Australian, Medical Journal, Pioneer Mail, Hertfordshire Mercury, Health, Liverpool Daily Post, St. Mary's Hospital Gazette, Bristol Mercury, Yorkshire Post, Statesman (Calcutta), Indian Medico-Chirurgical Review, Surrey Advertiser, West Middlesex Advertiser, Guy's Hospital Gazette, Greenock Herald, Derby Express, Alliance News, Pocklington News, Buxton Herald, Liverpool Weekly Courier, Temperance Record, Public Opinion, Domestic Magazine, Local Government Journal, Inverness Courier, Alnwick Gazette, Scarborough Post, Galignani Messenger, Nenagh Guardian, Western Daily Press, Kingston and Surbiton News, Uxbridge Gazette, Kidderminster Standard, Aberystwith Observer, Observer, Liverpool Mercury, &c., &c*

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U.—University, Lond.

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